# PATENT, TRADEMARK AND COPYRIGHT JOURNAL OF RESEARCH AND EDUCATION VOLUME 13 1969-1970

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# A Dual Patent Program: To Increase Patent Reliability And Decrease Litigation Costs*

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## OCCASION

THE CONCURRENCE OF TWO IMPORTANT EVENTS motivated the choice of subject for this paper at this time. The Institute has recently completed a systematically planned series of research studies on the Report of the President's Commission, and legislative recommendations stemming therefrom. The findings of these studies have been reported in *IDEA* and have been compiled and published as a monograph entitled "Patent Revision Proposals: Incentives or Deterrents to Technological Innovation?" In February 1954 the Institute was placed in operation by The George Washington University as part of its research and

* The Dual Patent Program, as outlined in this paper, is a phase of the Institute's study on the cost of enforcement of industrial property rights, including approaches that might be taken to increase the certainty and reduce the delay and expense in patent litigation. The paper, prepared for presentation to the March 1969 Junto meeting of the Philadelphia Patent Law Association, has evolved out of the Institute's initial efforts in this area. The first working draft has been sent to a selected sample of experts for review and comment.

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education facilities. It would appear that this confluence of occasion—the publication of the Institute's findings on the Report of the President's Commission on the Patent System and the 15th anniversary of our operation—provides a fitting opportunity for us to look to the needs of the system for the future.

The Institute has amassed and published a good deal of pertinent information for the past 15 years on various aspects of the subject the President's Commission was established to examine. We have been laying information groundwork for the President's Commission since our inception, and our studies on the Commission's Report mark, in a sense, a milestone in the relevant investigations in which we are engaged.

From an examination of our findings to date, we are impressed with the close relationship between the critical problems of the Patent Office and the major problems of patent litigation. Moreover, there appears to be a need for (a) longer run measures for the improvement in legal procedures relating to the patent system while we pursue (b) more immediate solutions. It is clear that progress with these problems, both for the short and longer range, could be advanced by a combination of (a ) the seasoned judgment and intimate experience of practitioners with procedure and administration of the law with (b) the technical knowledge and experience of our Research Staff.

The foregoing factors have suggested the plan we are following in an Institute study on changes in approach that might significantly increase the reliability of patents and decrease the cost and delay in their litigation. We seek especially to tap the people having practical working knowledge of the system in their normal employment for short-run recommendations. We also want to enlist these experts in evaluating the Institute's longer range proposal—stemming from our continuing examination of the system—set forth in this paper. Thus, we are seeking to augment our inhouse research in a most authoritative way.

I wish to emphasize this paper's long-range objective. It is our belief that the Institute, as an academic institution, can best support the system by not only making the system's evolution vital and meaningful as we go along, but also by contributing ideas to serve as guidelines for the future, to avoid extraordinary upheavals. Toward the accomplishment of this objective, compatible with the spirit of the founders of the Institute, we are proposing consideration of a Dual Patent Program (DPP), which we believe will help this country to meet the challenging opportunities in coming years.

## PERSPECTIVE AND PURPOSE

Patents have been specifically accorded attributes of property by statute,[1] are examined before issue,[2] are presumed to be valid,[3] have a limited life span,[4] are granted as a public service[5] and, yet, continue to be more vulnerable to court destruction than most other types of property. The concept of unobviousness[6] is exceedingly difficult for the specialist and almost incomprehensible to the layman. Moreover, there are certain people who regard the patent as an evil monopoly[7] (a burden on society), others employ hindsight to evaluate the patented invention,[8] and there are those who decry the undesirable effects of defensive patenting[9] and patent licensing. If the severe

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[1] "Subject to the provisions of this title, patents shall have the attributes of personal property." 35 U.S.C. § 261.

[2] 35 U.S.C. §§ 131-135.

[3] "A patent is presumed to be valid and the burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it. 35 U.S.C. § 282. Thus the plaintiffs need prove only ownership and infringement." Hirs v. De-Laval Turbine, Inc., 159 *USPQ* 773, 776 (D.C. Florida 1968).

[4] "Every patent shall contain a . . . grant to the patentee, his heirs or assigns, for the term of seventeen years, of the right to exclude others from making, using, or selling the invention throughout the United States. . . ." 35 U.S.C. § 154.

[5] "The Congress shall have power . . . To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." U.S. Const. art. I, § 8, cl. 8.

[6] "Sec. 103. Conditions for Patentability; non-obvious subject matter.

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made." 35 U.S.C. § 103.

[7] "One of the difficulties comes from the frequent tendency to identify patents as such with objectionable monopoly. There are a surprising number of laymen who feel that whenever a patent is destroyed, as by 'dedicating it to the public,' a public benefit is conferred. This is a strange point of view. It holds that a piece of property, which is what a patent is, created by an act of the Patent Office under the statutes, is in some way evil." Vannevar Bush, *Proposals for Improving the Patent System,* Study No. 1, Subcommittee on Patents, Trademarks, and Copyrights, Committee on the Judiciary, U.S. Senate, 84th Cong., 2nd Sess. (1956), p. 15.

[8] "A method of analysis, dissection and reassembly through hindsight always needs close scrutiny. Diamond Rubber Co. of New York v. Consolidated Rubber Tire Co., 220 U.S. 428, 435; Duo-Flex Corp. v. Builders Service Co., 322 F.2d 94, 138 *USPQ* 542." Hirs v. DeLaval Turbine, Inc., 159 *USPQ* 773, 777 (D.C. Florida 1968); Goodyear Tire & Rubber Co., Inc. v. Ray-O-Vac Co., 321 U.S. 275 (1944); Washburn & Moen Mfg. Co. v. Beat 'Em All Barbed Wire Co., 143 U.S. 275 (1892).

[9] "It is difficult to perceive any rational basis for continuing to burden an overloaded Patent Office with defensive patent applications which must be handled in the same fashion as other applications. Surely some equitable way can be devised

impact of antitrust and unfair competition law[10] is added to the foregoing factors, it is clear that the challenge to the patent in the courts has become so formidable there is danger that the vigor of our technological progress and our national objectives may be adversely affected.

Effort is currently being made to modernize the patent system.[11] The pace of R&D (which is the source and principal reason for patents) has been greatly increased and patent experts have been striving to match that progress, some espousing very radical departures from present practice.[12] To avoid serious loss to the system's vitality,

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to relieve this load." George Frost, *The Patent System and the Modern Economy,* Study No. 2, Subcommittee on Patents, Trademarks, and Coyprights, Committee on the Judiciary, U.S. Senate, 84th Cong., 2d Sess., (1957), p. 63; John T. Roberts, "A Reappraisal of the American Patent System of Patent Examining," *JPOS,* Vol. 48, No. 3 (March 1966), pp. 156-205.

[10] See H. Thomas Austern, "Umbras and Penumbras: The Patent Grant and Antitrust Policy," 33 *G.W. Law Review* 1015 (1965); S. Chesterfield Oppenheim and Glen E. Weston, *Federal Antitrust Laws,* Chap. 13, "Patents and Antitrust," pp. 641-775 (1968); S. Chesterfield Oppenheim, "Patents and Antitrust: Peaceful Coexistence?" 54 *Mich. Law Review* 199 (1955); George E. Frost, "Patents and Antitrust Laws—Thoughts on Competitive Principle and Application to Certain Topics," 10 *Antitrust Bulletin* 315 (1965); "Conflicts between Patents and Antitrust Laws," *IDEA,* Vol. 10, Conference Number (1966), pp. 29-65; Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp., 382 U.S. 172 (1965); Hartford-Empire Co. v. U.S., 323 U.S. 386 (1945); Brulotte v. Thys Co., 379 U.S. 29 (1964); U.S. v. General Electric Co., 272 U. S. 476 (1926); U.S. v. Line Material, 333 U.S. 287 (1948); American Securit Company v. Shatterproof Glass Corp., 268 F.2d 769 (3rd Circuit 1959); U.S. v. Singer Manufacturing Co., 374 U.S. 174 (1963); Motion Picture Patents Co. v. Universal Film Manufacturing Co., 243 U.S. 502 (1917); Morton Salt Co. v. Suppiger, 314 U.S. 488 (1942); Mercoid Corp. v. Mid-Continental Investment Co., 320 U.S. 661 (1944); Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336 (1961); 377 U.S. 476 (1964); C. Corry, *Compulsory Licensing of Patents—A Legislative History,* Study No. 12, Subcommittee on Patents, Trademarks, and Copyrights, Committee on the Judiciary, U.S. Senate, 85th Cong. 2d. Sess. (1958); H. Roy Chope, "Conflicts between Patents and Antitrust Laws," *JPOS,* Vol. 49, No. 11 (November 1967), pp. 819-830.

[11] *Report of the President's Commission on the Patent System,* (Washington, D.C.: G.P.O. 1966). Among the bills that have been introduced incorporating recommendations of the Commission are S. 1042, 90th Cong. 1st Sess.; H.R. 13951, 90th Cong., 1st Sess.; H.R. 5924, 90th Cong., 1st Sess.; H.R. 7454, 90th Cong., 1st Sess.; S. 3892, 90th Cong., 2d Sess.; S. 2597 (Dirksen), 90th Cong., 2d Sess.; S. 1246 (McClellan), 91st Cong., 1st Sess.

[12] *Report of the President's Commission on the Patent System,* Recommendation (I) First to file. This change would call for abolition of grace period and interferences. In addition foreign knowledge, use, and sale, would be included as prior art; (II) Introduction of preliminary applications as a substitute for the present grace period; (VII) Arrangement for publishing of a pending application 18 to 24 months after its earliest effective filing date; (IX) Standby Optional Deferred Examination; (XI) Provision for a citation period before the patent

precautions should be taken to assure that proposed modifications are really needed and are in the national interest.

Change, which can command much support today for its own sake, presents a real danger because the patent system is the only instrument provided by the Constitution to secure and nurture our technology: There is no legal back-up arrangement to replace an emasculated patent system. Decisions on modification of the system are also difficult for legislators because of a common confusion by laymen of the technology with the instrument provided by society to perform the legal function relating to the technology, the patent. Because the patent system acts as an incentive to maximize technical change, by rewarding those who step up the pace, does not necessarily mean that the system itself must fundamentally change! The system accomplishes its purpose if it encourages progress, adequately assesses the amount of change, and provides the legal mechanism for protection and compensation. If there were more information available on how the patent system acts (e.g., as an umbrella for society's legal protection), it would contribute to better understanding—and sounder decision-making on changes to the system.

Since the patent system is the legal channel established between inventors and society to perform the judicial function, so that the products of creative people will be treated fairly (and with due consideration for the progress of science and the useful arts), a sound approach would be to supply remedies to the system, if such a function is not now being provided for adequately. In one major essential there is general agreement that the patent system is not meeting the need: The presumption of validity has too frequently failed the inventor in the courts.[13] Some blame the failure on the lack of action to improve the operations of the Patent Office so that only quality products would issue;[14] and the Patent Office responsively—as

issues during which the public could submit relevant patents or publications; (XV) Introduction of a provision whereby private parties can seek the cancellation of issued patents; (XVII) Creation of an interim liability for infringement of a claim prior to issuance of a patent; (XVIII) Measurement of the term of a patent for a period of 20 years from its earliest U.S. filing date; (XXIII) *In Rem* Invalidity; (XXXIII, XXXIV, XXXV) Undertaking of a series of measures directed to the promotion of a universal patent system.

[13] C. Marshall Dann, "Adjudication of Patents under the 1952 Act," pp. 20-22, and Richard J. Dearborn and R. Bradlee Boal, "Adjudications by Circuits and Arts Involved," *The Encyclopedia of Patent Practice and Invention Management,* Robert Calvert, (ed.) (New York: Reinhold Publishing Corporation, 1964), pp. 22-25.

[14] See concurring opinion of Justices Douglas and Black in Great Atlantic and Pacific Tea Co. v. Supermarket Equipment Corp., 340 U.S. 147, 87 *USPQ* 303

well as responsibly—has been taking bold steps[15] to handle the great mass of complex material that is being thrust upon it for examination, but many feel that the stress is still on quantity[16] production rather than on quality patents. Moreover, Examiners know that their output frequently will not be presumed valid when it comes to court test. Despite this situation, it is painfully clear that the courts—discharging a general judicial function—are even less prepared technically to meet the need. Then, would it not be the wise approach to aid the Office, both materially[16a] and psychologically,[16b] to accomplish the task it was established as a specialist to perform?

Vannevar Bush, in a paper published in December 1956 entitled, "Proposals for Improving the Patent System,"[17] listed "Increase the presumptive validity of patents" as his first recommendation. To effectuate this proposal he prescribed three remedies:

> "(a) The Patent Office should exert more effort to insure that the patents it issues are truly valid. . .

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(1950); Crest Specialty v. Trager, 341 U.S. 912, 89 *USPQ* 175 (1951); Graham v. Deere Co., 383 U.S. 1 (1966), 148 *USPQ* 459.

[15] See speech by Commissioner Brenner to the Patent, Trademark, and Copyright Section of the American Bar Association in Philadelphia, August 6, 1968; Edward J. Brenner, "Patent Office Activities During Fiscal Year 1966—Outlook for Fiscal Year 1967," *JPOS,* Vol. 48, No. 8 (August 1966), pp. 475-483.

[16] "How to Reduce Delay in Securing Patents," *IDEA,* Vol. 9, Conference Number (1965), pp. 73-120; "Balancing Patent Quality and Rapid Processing," *IDEA,* Vol. 10, Conference Number (1966), pp. 91-137; E.W.E. Micklethwait, "Deteriorating Examination," *JPOS,* Vol. 48, No. 9 (September 1966), pp. 539, 543.

[16a] If Congress were presented a feasible, overall plan which would shift more of the patent burden from the general courts to the Patent Office, a new special court and the interested public, and in pursuance of this plan (which had received the deliberate consideration of the Bar and of other relevant groups) the Office had to bear a greater proportion of the overall costs than it had in the past, the chances are much better than they are today that more funds would be appropriated by the Congress for Patent Office documentation and people.

[16b] Under the Dual Patent Program, Examiners would know that their decisions, in certain cases, would be more determinative, and the realization of this increased responsibility should (in accordance with psychological evidence in other fields) inspire Examiners to produce a better quality product. The expeditious check on issued patents, due to the vigilance of interested people ouside the Office, would also tend to raise patent quality; Examiners would be aware that their allowed claims would be more quickly challenged under DPP—even while they were still employees of the Patent Office. Under the proposed program, private individuals and companies would be more likely to supply information that might not be available to the Patent Office than in an opposition procedure. The concept of "incontestability" would promote, in a sense, a cumulative enhancement of patent quality: "incontestability" would encourage Examiners to produce a better product because of their greater responsibility and the watchfulness of interested people outside the Patent Office who would be influenced by the prospect of "incontestability" to more vigilantly protect their interests.

[17] Vannevar Bush, *supra* note 7.

"(b) More complete Patent Office examination of prior art; improved classification, adequate budget. . .

"(c) Opposition proceeding."[18]

Dr. Bush was particularly distressed by a subsequent holding of invalidity in the courts on the basis of a publication previously overlooked by the Patent Office. He would supplement an adequate Office staff and facilities with mechanized literature search and a simple opposition procedure.

Any proposal for improving the patent system must begin, as Dr. Bush did, with positive steps for making the Patent Office product more secure from attack. Curiously, certain recommendations that have received support recently—such as *in rem* invalidity, which seeks to cancel a claim previously held invalid by a federal court, so as to avoid "clutter[ing] crowded court dockets"[19]—if enacted without a compensating increase in the presumption of validity, would actually reduce confidence in issued patents prior to court test and, consequently, weaken rather than strengthen the product. Unfortunately, these recommendations are a fair measure of the opinion of interested persons of current Patent Office standards of patentability.[20]

"To raise the quality and reliability of the U.S. patent,"[21] is the first objective set forth in the Report of the President's Commission on the Patent System. This purpose ranks high in most patent literature; and few experts do not include a suggestion for fortifying the validity of patents in proposals for revising the patent laws.[22] Among the many suggestions, those relating to the nature and treatment of the issued patent have received a large share of attention,[23] and rightfully so, because the value and commercial use of a patent depend directly on its quality and reliability; indeed, this paper employs statistics on the commercial use of patents on which to build a program to improve patent reliability. The proposed program is based on certain novel, and rather surprising, information on the rapidity with which patented inventions are first put to commercial use that was accumulated

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[18] *Supra* note 7, pp. 20-21.

[19] Commission's Report, *supra* note 11, p. 44.

[20] See Arthur M. Smith, *Patent Law* (Ann Arbor: Overbeck Co. 1954), pp. 453-482; Edmund W. Kitch, "Graham v. John Deere Co.: New Standards for Patents," *JPOS*, Vol. 49, No. 4 (April 1967), p. 237.

[21] Commission's Report, *supra* note 19, p. 3.

[22] See Preliminary Draft of the Proposed Revision and Amendment of the Patent Laws which culminated in the 1952 Patent Act.

[23] See Hearings on 1952 Patent Act, 82d Cong., 1st Sess., H.R. 3760, "Patent Law Codification and Revision," June 13, 14 and 15, 1951, Subcommittee No. 3 of the Committee on the Judiciary, House of Representatives.

and published by The PTC Research Institute.[24] Moreover, interviews I conducted with foreign experts in Europe[25] in the summer of 1967 encouraged me to include a Validity Court (somewhat akin to one with which Europeans have had much experience) in the program.

A Dual Patent Program (DPP) is proposed with the following major objectives:

(1) To encourage inventions, investment in their development, and their commercial utilization;

(2) To provide the independent inventor, or the small businessman, and the larger company an opportunity to choose patent protection more suitable to their peculiar needs by offering two types of patent: a "long-term" and a "short-term" patent;

(3) To make the patent a much more dependable property by introducing the concept of "incontestability";

(4) To simplify the method of challenging a patent after issue, and reduce the sometimes diverse results of multiple court contests, by establishing a Court of Validity to act on questions of validity;

(5) To place greater reliance on the Patent Office product by grounding the concept of "incontestability" in a high quality of Office examination.

## Two Broad Classes of Innovator: Dissimilar Needs

New, small businesses, particularly those based on so-called "mental capital," which must compete with established businesses, are often in need of patents that would give them reliable support, even for a relatively short period while they are gathering strength. This type of patent could command the venture capital that is so difficult to obtain by small, unknown companies. By the same token, a short-lived, reliable patent, inexpensive to maintain, would serve the best interests of the independent inventor. Although the act of invention is being increasingly recognized as joint,[26] by reason of the

[24] Barkev S. Sanders, "Speedy Entry of Patented Inventions Into Commercial Use," *PTC. J. Res. & Ed. (IDEA)*, Vol. 6, No. 1 (Spring 1962), pp. 87-116.

[25] See L. James Harris, "Notes on Informed European Opinion Regarding Industrial Property—Summer, 1967," *IDEA*, Vol. 11, No. 3 (Fall 1967), pp. 289-305,; L. James Harris and Gerard J. Weiser, "Informed Foreign Experience and Opinion on Provisions Similar to Commission Recommendations," *IDEA*, Vol. 12, No. 4 (Winter 1968-1969); pp. 1021-1052.

[26] Irving H. Siegel, "Changing Status of Sole Inventors: A Company Case Study," *IDEA*, Vol. 11, No. 2 (Summer 1967), pp. 151-158.

cooperation required for the highly complex modern technical advances, the single individual (sole inventor) continues to contribute the germ idea[27] or see it through to fruition—even as he did in the days of the Founding Fathers. The sole employed inventor would greatly benefit by a "short-term" patent by means of which he could rapidly translate his talent into an embodiment that would demonstrate his contribution to company executives. Thus, inventors and companies, large and small, could use this patent for inventions that have a limited market life or which require little development.

For the modern, complex invention that requires a long, arduous and costly developmental period, the cooperation of experts from many disciplines—and which often comes only after science has been able to unlock essential basic information in the same or related fields[28]—a short patent would be inadequate. A full 17-year patent is required, modified to encourage further exploration, rather than merely serve, as many now charge,[29] as an invitation to a law suit. The current highly technical inventions are a considerable burden on lay judges, particularly where the contribution involves the many skills that are likely to be incorporated into advances that require long development; even the load on Patent Office Examiners is often very heavy. With adequate financial support from the Congress for the Patent Office, could not a higher quality examination be substituted, in part, for the costly, time-consuming and uncertain litigation and relitigation in the courts of these complex developments—which (unfortunately) frequently result in conflicting decisions,[30] based on the

[27] Irving H. Siegel, "Dominance of Sole Patentees in Computer-Related Technology," *IDEA,* Vol. 8, No. 1 (Spring 1964), pp. 45-50; and "Persistence of the Sole Inventor," *PTC J. Res. & Ed. (IDEA),* Vol 5, No. 2 (Summer 1961), pp. 144-149. See also remarks of Irving H. Siegel in Vol. 7, Conference Number (1963), *PTC J. Res. & Ed. (IDEA),* pp. 157-160 and *IDEA,* Vol. 8, Conference Number (1964), p. 52.

[28] John Jewkes, David Sawers, and Richard Stillerman, *The Sources of Invention,* (St. Martins Press, 1959); H. Stafford Hatfield, *The Inventor and His World,* (West Drayton, Middlesex, England: Penguin Books, 1948); Estelle H. Ries, *Elias E. Ries, Inventor* (New York: Philosophical Library, 1951).

[29] Vannevar Bush, *supra* note 7, pp. 15-16; George E. Frost, *supra* note 9, pp. 71-75.

[30] "A recent decision of the Fifth Circuit illustrates another of the prices of the circuit system as we know it. The case, Bros., Inc. v. W. E. Grace Manufacturing Company, 351 F. 2d 208 (1965), should have been routine enough. In 1952 a patent was issued for a machine that compacts dirt in airport runways, highways and similar places. In 1954 the patentee began litigation against companies it thought were infringing its patent. It sued the manufacturer of the infringing device and distributors who were handling it. The suits were brought in different places, within different circuits. As of today—and the last word has not been heard—this routine controversy has been in the courts for eleven years. It

persuasiveness of the trial lawyer or the peculiar comprehension of the judge?

## The Specific Proposals and Their Genesis

What specific proposals are suggested from the foregoing brief discussion? It is in the national interest to transfer more of patent decision-making on validity from the general courts to (a) the Patent Office, where the technical expertise is accessible and the climate is more favorable, and to (b) a new special Validity Court, provided that the procedures in the Office are arranged to assure the issuance of high quality patents. There also appears to be a need for two distinct patents, with reliability tailored primarily to the unique requirements of two different publics. It is, therefore, proposed that (a) a "long-term" 17-year patent, incontestable five years after issue, and (b) a "short-term" seven-year patent,[31] incontestable one year after issue, be instituted. During the first five years of the long-term patent, it would continue to be subject to current practice and procedure, except that the issue of validity would be tried only before a Validity Court.

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has occupied the attention of no fewer than twenty-five judges in three different circuits, and it has produced eleven reported opinions.

"The Sixth Circuit held the patent valid and refused to consider newly discovered evidence casting doubt on its validity. The Fifth and Eighth Circuits each considered the new evidence, but with different results. Accordingly, the patent is now valid in the Fifth and Sixth Circuits, but invalid in the Eighth Circuit. The Supreme Court has refused to review the conflicting decisions from the three circuits. In the crowded judicial world of tomorrow it makes no sense to litigate the same issue over and over in different parts of the federal judiciary. It should be no difficult task to draft restrictive venue provisions, so that all such cases are channeled to a single appropriate forum, and to recognize notions of *res judicata* broad enough for the needs of our times." (Footnote omitted.) Charles Alan Wright, "The Federal Courts—a Century after Appomattox," *American Bar Association Journal,* Vol. 52, No. 8 (August 1966), pp. 742-748, at p. 745.

Compare the above with the findings on patent re-litigation in *"In Rem* Invalidity: A Solution in Search of a Problem?" by Alton B. Rollins, *IDEA,* Vol. 12, Nos. 2-3 (Summer-Fall 1968), p. 901.

[31] The idea of a shortened patent is not original with the Institute. A very provocative shortened patent proposal is made by Harry C. Bierman in his paper entitled, "Proposal for Patents Having Shortened Term," published in this issue of *IDEA.* He suggests "that a provision be introduced into the patent law which would inure to the benefit of both the inventor and the public, as follows:

"After the allowance of an application for patent and during the period allowed by law for the payment by the applicant of the issue fee, the applicant may elect to have the patent issue for a period of nine years, in which case the patent shall be considered to be valid in all respects except that in a suit for infringement thereof the defendant may defend on the basis of public use or publication of the invention in the United States prior to the making thereof by the patentee."

After five years, however, this patent would become "incontestable," with respect to validity, and could be challenged before the Validity Court on but two[31a] grounds: (a) prior invention[32] and (b) fraud or deception. "Prior invention" involves complete anticipation; it does not comprehend the "obviousness" concept. During the "incontestable" period, infringement, antitrust, and misuse issues would continue to be treated in the general courts, in accordance with current practice. If a question of validity arises, the U. S. District Court proceedings would be suspended (unless the District Court determines validity is raised in bad faith or its further consideration would be futile) while the special Validity Court takes cognizance of the question. After decision by the special court, the District Court would resume its consideration of the case, giving full and complete recognition to the opinion of the special court.[33]

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[31a] See notes 45 and 51, *infra,* for a third ground for challenge which, in effect, continues the patentee's responsibility for meeting the special requirements of the statute with respect to his own actions.

[32] The Dual Patent Program meets the broad Constitutional standard of (a) promoting "the progress of science and useful arts," and takes account of the Constitutional restrictions implicit in the phrase (b) "securing for limited times . . . to (c) inventors." Implementation of the Constitutional purpose of (a) and (b) is self-evident. That the Constitutional aim of (c) is effectuated in the proposal set forth in his paper could be argued along the following line: (1) the English system, from which the early colonial and federal systems stem, granted patents for inventions from outside the country to importers who were not inventors; (2) historically, the "invention" condition was considered by American courts even before Hodgkiss v. Greenwood, but was regarded as a rather low-level requirement (see L. James Harris, "Section 103 Revisited," *IDEA,* Vol. 9, No. 4 [Winter 1965], pp. 617-634); (3) the Founding Fathers intended that novel contributions be recognized under Article I, Section 8, Clause 8 (the interpretation of the word "inventors" or the phrase "to promote the progress of science and useful arts" as requiring something much more than novelty in specific inventions is primarily judicial interpretation); (4) Justice Clark's opinion in Graham v. Deere to the contrary notwithstanding, the courts have raised the standard of "invention" over the years, and the Congress, in 1952, sought to lower it to the level set in Hodgkiss v. Greenwood (see L. James Harris, *supra*). (If Congress determined that, to promote the progress of science and useful arts, it was necessary to lower the standard of "invention," the Supreme Court should be expected to support that decision in accordance with its holding in McClure v. Kingsland, 42 U.S. (1 How) 202 (1843) that there was no limitation on the right of Congress to legislate on the subject of patents.) The proposal in this paper, therefore, could be said to approach the original Constitutional standard because the requirement for novelty is specifically retained. ("Incontestability" can always be challenged on the basis of prior invention.) Moreover, the proposal also meets the stricter standard set by the courts because the concept of "non-obviousness" is included in the Patent Office examintion for both types of patent; and it continues to prevail as a condition for validity during the first year after issue for the short-term patent and the first five years after issue for the long-term patent.

[33] In actions commenced in the "contestable" period, validity would be ascer-

The seven-year short-term patent would become "incontestable" one year after issue, and would be subject to the same practice and procedure outlined above for the long-term patent, during the latter's "contestable" and "incontestable" periods. Although the short-term patent would *not* be a "Gebrauchsmuster"[34] type (an application must meet all the patentability tests), it would most likely be used for the short-lived market and the uncomplicated invention that does not require a long development period. The independent inventor and

tained by the special court with regard to the scope necessary to avoid anticipation or obviousness. The District Court would have occasion to examine the prior art when it is alleged that an accused product or process is obvious in view of that art. Also, if the District Court decides that prior art introduced by the defendant, which had not previously been before a Validity Court, challenged the validity of the claims, the District Court would refer the question to the special court for opinion. Infringement would then be decided by the District Court on whether the alleged infringing product or process is within the scope of the claims as determined by the special court. Thus, the special court, which is technically equipped to do so, would help to prepare the groundwork for the general court: It would consider the prior art, determine the differences between the prior art and the claims, and judge the level of the ordinary skill in the art, and provide an analysis for the District Court in terms it could understand.

In actions begun in the "incontestable" period validity could be questioned only on the basis of anticipation. This would be determined by the special court. *Even in actions begun in the "contestable" period evidence of newly discovered prior art, other than to demonstrate anticipation, would not be acceptable in any court if presented after the close of this period.* The question of infringement would be decided by the District Court, as in actions begun in the "contestable" period, on whether the alleged infringing subject matter is within the scope of the claims; but the District Court would be limited in its deliberations, in actions begun in either period, to prior art considered by the Patent Office or by the courts during the "contestable" period. Judgment with respect to the doctrine of equivalents would, therefore, be made by the District Court in view of that prior art. The question of obviousness of the claims, however, would not be open for consideration in actions begun during the "incontestable" period. If the special court, at any time, finds the claims invalid, the decision would be *in rem,* and future litigation on such claims would be foreclosed.

[34] "Petty Patents or Utility Models are obtainable in many foreign countries for inventions that do not have the required 'inventive height' for a regular patent. They are generally granted for a shorter term and provide a less extensive scope of protection than a regular patent. Only articles having a definite form may be covered, not processes or substances. . . .

". . . The German 'Gebrauchsmuster' is the most famous of petty patents. Its popularity is due to the strict examination and high standards of patentability of the German Patent Office for regular patents. Also, it is granted quickly and without examination or opposition, and is often applied for along with a regular patent. It may even be filed in the form of an 'Eventual' (Provisional) Gebrauchsmuster along with a regular application and completed during the pendency of the regular application or if the regular application is rejected." S. Delvalle Goldsmith, "Foreign Patents," *The Encyclopedia of Patent Practice and Invention Management, supra* note 13, pp. 326-327.

Because of the ubiquity of the petty patent and, thus, the possibility of misinterpretation, it should be emphasized that the proposed short-term patent is intended to be a regular patent.

the small business man should find the short-term patent particularly suitable.

The commencement and length of the suggested period of "incontestability" for the short-term patent and the commencement of the "incontestability" period for the long-term patent are based on empirical information on the rapid commercial use of patented inventions. It appears from studies of The PTC Research Institute that approximately 40 percent[35] of commercially used patented inventions are put to use before an application is filed, another 50 percent[36] before issue, and most of the remainder within three years after issue.[37] The bulk of after-issue first-use clusters around the first year.[38] If a patented invention is not used within five years after issue, there is little likelihood it ever will be.[39] It also appears, from an examination of foreign patent maintenance statistics, that patents are very likely to be in commercial use if maintenance fees continue to be paid five or more years after issue.[40] In this connection, it may be of some relevance that Germany, previous to 1949, limited revocation proceedings to five years after the patent was granted.[40a]

If the one-year period after issue is considered the first critical period for first use of the patented invention and the five-year period after issue the final critical period, the short-term patent would be accorded an additional two years, for a total of seven, all "incontestable" except for the first, before going into the public domain. This would coincide with the first of the two seven-year apprenticeship terms on which it is alleged the 14-year colonial, and the early state and federal patents were based.[41] The short-term patentee relin-

[35] Barkev S. Sanders, "Longevity of Patented Inventions Put to Commercial Use," *IDEA*, Vol. 8, No. 3 (Fall 1964), pp. 337, 342; "Speedy Entry of Patented Inventions Into Commercial Use," *PTC J. Res. & Ed. (IDEA)*, Vol. 6, No. 1 (Spring 1962), p. 87.

[36] *Ibid.*

[37] *Supra* note 24, pp. 87, 88.

[38] *Supra* note 24, p. 102. The "L"-shaped curve in Chart II of Dr. Sanders' report demonstrates the rapidity with which the likelihood of first use diminishes during the first year after patent issuance.

[39] *Supra* note 24, pp. 87-116.

[40] Barkev S. Sanders, "The Upgrading of Patented Inventions and Their Use Here and Abroad," *PTC J. Res & Ed. (IDEA)*, Vol. 7, No. 1 (Spring 1963), pp. 45-83.

[40a] Also see Article 124 of Chapter 6 of the current Japanese patent law, *infra* note 73. This article has been interpreted by a Japanese colleague to mean that "a demand for cancellation cannot be filed after a lapse of five years from the date of registration of the patent right if the reason for the demand is based on publications published or distributed in foreign countries."

[41] Bruce W. Bugbee, *The Genesis of American Patent and Copyright Law*, (Washington, D.C.: Public Affairs Press, 1967).

quishes the remaining ten years of the patent period in return for "incontestability" one year after issue. (This one-year period after issue would correspond with the period allowed to copy claims for interference purposes.) The short-term patent would be subject initially to the full compass of current defenses, as well as to a new type of "Declaratory Judgment" action, for a period of one year after issue. The long-term patent, which most likely would be used by the larger companies for the long-lived market and for extended developmental purposes, would be subject to current defenses and the new type of Declaratory Judgment action for a much longer time: for a five-year period after issue. For the unsophisticated invention directed to the short-lived market there is little likelihood that first use would occur later than one year after issue and the chances are so slim of first use for any invention after five years that, other than the invention already in use, only the invention requiring extended development or the patent obtained as a gamble on future use is likely to benefit from the long-term patent's "incontestability" period; innovation that would otherwise be lost to the economy would thus be encouraged. In a very real sense this would meet the standard set forth in the Constitution: "to promote the progress of science and useful arts."[42]

### Correlative Concepts: "Incontestability" And Single Validity Tribunal

A Validity Court before which validity claims would be tried is not new. Germany, for example, has a somewhat similar arrangement.[43] Placing the court in Washington, D.C. would make the technical skill and facilities of the Patent Office readily available, without subjecting the court to the jurisdiction or administration of Patent Office officials. The opinions of the court, as to validity, would be binding on the general judiciary throughout the country. To accomplish this, the special court would be endowed, by statute, with requisite validity authority,[44] subject only to appeal to the CCPA and certiorari to the

[42] U.S. Const., art. I, § 8, cl. 8.

[43] "Germany (Federal Republic), The Patent Law of January, 1968," Part 5, No. 2, *Industrial Property,* BIRPI, No. 5 (May 1968).

[44] Congress has the authority to establish a Validity Court with the jurisdiction proposed in this paper. The following excerpt from an article by Professor Wright places this authority in historical perspective:

"Except for the Supreme Court, which has always had its distinctive and important role in our governmental structure, the federal courts before the Civil War were 'subsidiary courts.' That lower federal courts existed at all was something of an accident. At the Constitutional Convention a motion to strike out the provision creating courts inferior to the Supreme Court was carried. Wilson and Madison then put forward a compromise. They moved that Congress be empowered to institute inferior tribunals; they argued that there was a distinction between

Supreme Court. During the "incontestable" period, all decisions of the Patent Office, with respect to prior art which was actually before the Office, would be considered conclusive. If a thorough search conducted in the Office by a competent corps of Examiners did not surface any prior art, the chances would be smaller than they are today that others would. Utility and formalities would not be challengeable in the "incontestable" patent; one year after issue and five years after issue infringers would be estopped "by conduct" from attacking the "incontestable" short-term and long-term patents, respectively, as invalid on such grounds. The one-year technical bars of publication,[45] use,[46] or sale[47] prior to filing would be unavailable as defenses against the "incontestable" patent, except when the actions responsible for raising the bars are those of the patentee. Proof of prior invention, evidenced by publication, use, sale or otherwise, would be admissible at any time to challenge validity.

Thus, the short-term patent and the long-term patent would be subject to current procedures during their processing as an application by the Patent Office. This would include interferences,[48] appeals[49] and any other practice that exists or may hereafter be introduced. The applicant would request either the short-term or the long-term patent

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establishing such courts absolutely and giving a discretion to the legislature to establish them if at some later time this should seem advisable. This proposal was accepted and appears in Article III, Section 1, of the Constitution.

"It is, of course, familiar history that the First Congress exercised the option and immediately created lower federal courts, but the jurisdiction given these courts was so limited that they played no significant part prior to the Civil War. Then their function was drastically changed.

> Sensitiveness to "states' rights," fear of rivalry with state courts and respect for state sentiment, were swept aside by the great impulse of national feeling born of the Civil War. Nationalism was triumphant; in national administration was sought its vindication. The new exertions of federal power were no longer trusted to the enforcement of state agencies.

"Reconstruction Congresses were quick to adopt legislation extending the jurisdiction of the federal courts, legislation which has a marked impact to this day." (Footnotes omitted.) Charles Alan Wright, *supra* note 30 at p. 742.

[45] Sec. 102 (b) of 35 U.S.C. The present law reads as follows:

"A person shall be entitled to a patent unless . . . the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or . . ."

The foregoing provision would be amended under the Dual Patent Program so that only the patentee's own publication, use or sale prior to filing could be raised as a bar during the "incontestable" period.

[46] *Ibid.*

[47] *Ibid.*

[48] 35 U.S.C. § 135.

[49] 35 U.S.C. § 134.

before issue, and the choice would be final. The short-term patent would become "incontestable" one year after issuance. Suits for infringement, however, could be brought in any District Court pursuant to the Federal Rules of Practice and pertinent statutes regulating venue and jurisdiction of courts. The unenforceability[50] of the patent would continue, as at present, to be pleaded in that court as an antitrust, misuse, or unfair competition defense. An allegation of invalidity would be tried only before the special Validity Court, and infringement or other actions in the District Courts would be suspended (unless the District Court considers the allegation a sham) during special court proceedings on such allegation. One year after issue the short-term patent would be contestable only for prior invention, fraud or deception. Any other conditions for patentability would be conclusively presumed. The bars set forth in U.S.C. Title 35, Section 102 (b), would be modified by this proposal to relate only to the patentee during this period.[51] Although the Office might miss one or more of the technical one-year-prior-to-filing bars to patentability, no real injustice would be done since they could be asserted for one year after issue, and at any time thereafter to prove prior invention; and the patentee would continue liable for his own public actions that raise these technical bars. It would be assumed that the Patent Office had examined for utility and the formalities. Seven years after issue the short-term patent would go into the public domain.

During the first year after issue of the short-term patent, and for five years after issue of the long-term patent, they would be legally enforceable like a patent under the 1952 Patent Act,[52] except that all questions of validity would be referred to and decided by the Validity Court. The special court would also be given sole jurisdiction over a new type of Declaratory Judgment proceedings that could be initiated *without the pre-condition of an existing case or controversy*.[53] In this

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[50] "The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

"(1) Noninfringement, absence of liability for infringement, or unenforceability, . . ." 35 U.S.C. § 282.

[51] Section 102 (b) would continue the one-year technical bars of publication, use or sale by the patentee prior to filing; however, the section would be amended to exclude an allegation of publication, use or sale by others, prior to filing by the patentee, against the "incontestable" patent.

[52] 35 U.S.C. §§ 281-293.

[53] The courts already give a very liberal interpretation in patent cases to the "case or controversy" requirement. See Muller v. Olin Mathieson Chemical Co., 160 *USPQ* 1 (1968); Joseph Bancroft & Sons v. Spunize Co. of America, 268 F.2d. 522, 122 *USPQ* 110 (1959); Simmonds Aerocessories Ltd. v. Elastic Stop Nut Corp. of America, 257 F.2d 485, 118 *USPQ* 187 (1958).

way, every opportunity would be afforded the public to test the patent during the initial one-year and five-year periods, respectively, raising an equitable estoppel "by conduct" to further attack (except for fraud and for prior invention) after the patent becomes "incontestable." The legal enforcement of, and challenge to, the long-term patent would be entirely like that of the short-term patent during their periods of "incontestability."

Under the Dual Patent Program (DPP) here proposed, reasonable doubt as to patentability should be resolved *by the Patent Office against the patentee.* This would avoid criticism against the proposed program, similar to that directed against the Patent Office in the recent past,[54] for the resolution of doubt in favor of the patentee as being inconsistent with the presumption of validity of issued patents. Since patents would become "incontestable" under DPP, and the decisions of the Patent Office, in certain instances, might be considerably more determinative than at present, there would be even greater reason for resolving doubt against the patentee. It would be inconsistent with a strong presumption of patentability—where the issuance of a patent would become after an initial period, albeit in a limited sense, a guarantee of its validity—for the Patent Office to resolve doubt in favor of the patentee.

## Implications of the Validity Court

The costs, duration, and uncertainties of patent litigation should be reduced under the Dual Patent Program. Overall, the number of instances in which the validity of the patent would be questioned should diminish and a greater uniformity of specification and claim interpretation should ensue. The benefits accruing from access to a single validity tribunal,[55] and a limitation of the grounds for challenge during the "incontestability" period, should more than offset the cost involved in some increase in the number of suits that might arise due to the elimination of the "case or controversy" requirement in the new type of Declaratory Judgment proceeding proposed during the first year of the short-term and the first five years of the long-term patent. For example, decisions of a single validity tribunal are bound to narrow the range of claim interpretations encountered in different infringement actions on the same patent in the general courts. The technical qualifications of the members of the Validity Court should

[54] E. W. Kitch, *supra* note 20.

[55] See note 30.

also tend to decrease the differences in the quality of interpretation among patents.

But more than technical competence is required to write opinions on patent cases; and, therefore, the members of the special court would have to be legally as well as technically trained and experienced. The impact of the special court on infringement litigation in the general courts would be considerably limited, if it would provide only superior technical skill. The acceptance by District judges of the opinions of the special court would be based on how the judges understand them. With a legally trained and experienced tribunal, having judicial stature and issuing opinions couched in legal terms, the District judges would not be as concerned about accepting rulings on findings which they had had no real opportunity to explore; and such a special court would be more competent to rule on questions of law and fact, which are often mixed in patent cases.[56] In case of any residual doubt, there would always be recourse to the CCPA.

It is assumed that the Validity Court would make good use of available legal procedural machinery, such as pretrial conferences, to expedite litigation and keep costs down. Much of the law on patents has been contributed by the non-patent judiciary in the past,[57] and it is the general consensus that this contribution has added depth and breadth to patent law. The members of the special court would serve temporarily, from time to time, as District judges,[58] and would be encouraged to draw on the whole body of law so that the precedents

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[56] Nordberg Manufacturing Co. *et al.* v. Jackson Vibrators, Inc., 153 *USPQ* 777 (1967).

[57] See Charles M. Allen, "Infringement of Patents," *Patents, Research and Management,* Howard I. Forman, (ed.), (1961), pp. 373-398; Giles S. Rich, Kettering Award Address, "The Vague Concept of 'Invention' As Replaced by § 103 of the 1952 Patent Act," *PTC J. Res. & Ed. (IDEA)*, Vol. 8, Conference Number (1964), p. 136.

[58] The heavy burdens of the District Courts and the primary purpose of the exchange (to have special court judges maintain direct contact with general litigation) suggest that judicial manpower be channeled in one direction only: from the special court and be employed to fill temporary District Court assignments. This should also avoid the practical limitations under the present statutes expressed by Professor Wright as follows:

". . . The Chief Justice of the United States may designate a judge from one circuit to sit temporarily in a district court or court of appeals in another circuit, but he may do so only with the consent of the chief judge or the judicial council of the circuit from which the judge is to be taken. There is a natural temptation for the chief judge of a circuit to give undue weight to the amount of work to be done in his own court, as against the need to have an extra judge for a time in some other circuit." (Footnotes omitted.) Charles Alan Wright, *supra* note 30 at p. 745.

they would utilize, as well as the decisions they would make, would derive from the larger general legal experience of the judiciary. The members of the Validity Court would be encouraged to participate in the seminar system introduced by the Institute of Judicial Administration and the classes conducted by the Committee on Trial Practice and Technique of the Judicial Conference of the U.S.[59]

The Validity Court would have the authority, if agreeable to the parties, to call on Patent Office personnel or other experts. Although litigants would be able to use their own experts, if they wished, the special skill of the Validity Court and the availability in Washington of Patent Office personnel should tend to lessen reliance on the independent expert—and thus reduce the cost of litigation. Disagreement among experts is, of course, expected, and the members of the special court would have the additional advantage over those of the general courts in that their technical understanding would enable them to discriminate among the arts presented.

A specialized court has been proposed,[60] from time to time, for improvement in methods used in settling legal controversies based on technical issues. One of the basic objections to a specialized court is that it would interfere with the continuous interaction of the patent law with the other branches of the law and sources of knowledge required for the making of sound legal decisions in complex technical

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[59] ". . . A dozen years ago the thought of judges returning to school would have seemed ludicrous to most members of the legal profession. Today the idea is all but universally accepted and acclaimed. The cause of this revolution in judicial training and education may be traced to the year 1956, when the Institute of Judicial Administration launched the first seminar for appellate judges. Each year since then twenty to twenty-five judges of state supreme courts and United States courts of appeals have assembled for two weeks of round-table discussions led by judges of exceptional experience and prestige, but all participants, including men who have just ascended the bench, are encouraged actively to take part in the proceedings. This seminar system has stimulated the development of judicial seminars at all levels—particularly for trial judges and extending even to justices of the peace.

. . . . "In a parallel development, newly appointed federal trial judges have during the last six years attended classes conducted under the aegis of the Committee on Trial Practice and Technique of the Judicial Conference of the United States. These are taught by experienced and seasoned judges. This novel development in sharpening judicial performance is certainly one of the most important in decades." Hon. Irving R. Kaufman, Judge of the United States Court of Appeals for the Second Circuit, "Courts in Crisis: Progress Versus Intransigence," *American Bar Association Journal,* Vol. 52, No. 11 (November 1966), pp. 1026-1029, at p. 1028.

[60] Leo H. Whinery, *Role of the Court Expert in Patent Litigation,* Study No. 8, Subcommittee on Patents, Trademarks, and Copyrights, Committee on the Judiciary, U.S. Senate, 85th Cong., 1st Sess. (1958), pp. 7-8.

cases.[61] It is feared that the views of such a court would tend to be narrow and unreceptive to progress. The proposed Validity Court, however, avoids this criticism because this special court would concern itself, as a court, solely with the question of validity. Infringement and other actions would be brought in the District Courts where patent law would be dealt with in context with the broad corpus of the law, which these tribunals are authorized to adjudicate. For the judges, as individuals, legal training and experience, as previously mentioned, would be prerequisites for service on the special court; and, despite the separate statutory judicial authority of the special court, its members would be subject to designation for temporary general District Court duty.[62] The practice before the special court would be similar to that in the District Courts, and members of the special court would be appointed by the President subject to Senate confirmation. The special court's decisions would be appealable to the CCPA.

In proposing the Validity Court, the weaknesses of other suggestions that have been made for technical assistance to the courts—such as, special masters[63] or commissions,[64] an advisory jury,[65] or a technical

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[61] One type of proposal which seeks to retain the benefits of general judicial experience was presented by Mr. Frost in *The Patent System and the Modern Economy,* (*supra* note 9 at p. 73):

"Possibly some modified arrangement might assure the participation of judges of technical competence in patent cases and at the same time preserve the benefits of decision-making by a judiciary having continuing general experience. One such arrangement might consist of a single court of patent appeals which would sit as a separate court only in appeals from Patent Office *ex parte* and interference decisions. As to all other appeals involving patent questions, the members of such court could disperse and sit individually with two regular court of appeals judges in the respective circuits. An arrangement along this line would assure the participation of a technically trained judge at the appellate level in every patent case and yet would give such judge only a minority voice in the decision-making process. Moreover, the judges of the court of patent appeals would bring to bear on Patent Office appeals a continuing experience in patent infringement and related questions. The principal disadvantage of such a scheme—in addition to the mechanical problems it necessarily entails—lies in the risk that the 'patent member' of a court of appeals panel would tend to dominate patent decisions.

"Still another variation is found in the possibility of having district judges in each circuit of technical competence and experience for special assignment to technically complex patent cases. This can be done in considerable measure within the confines of existing legislation. Indeed, the fact that the proposal has not been tried more frequently—or a movement started to assure the specific appointment and assignment of such judges—indicates that the courts and the bar do not consider the problem of technical knowledge as acute as the above discussion suggests." (Footnotes omitted.)

[62] See note 44.

[63] Whinery, *supra* note 60, pp. 8-13.

[64] Whinery, *supra,* pp. 14-17.

[65] Whinery, *supra,* pp. 17-20.

advisor to the court[66]—are avoided. The overemphasis in these other proposals on technical competence would obscure the significance of relevant branches of the law to the problems of evidence in patent cases. Moreover, the extent to which the advice of those assisting the court would be accepted would depend on the comprehension of a non-technically trained judge who would not even have had the usual opportunity of studying the case. These other suggestions would probably involve greater expense and delay than a special court. Moreover, it would be difficult to enlist qualified experts for every relevant specialty; and their compensation would have to be in line with earning capacity, and would undoubtedly increase the cost of litigation. Disagreement among experts may result in advice to the non-technically trained judge that may be different from the prevailing scientific opinion. A less complex, but often more telling, objection is that judges are understandably jealous of their prerogatives; and they hasten to point out that patent cases are generally assigned to judges who like to try them.

Under the Validity Court, litigants would be certain of a number of important factors in advance. They would know that questions of validity could only be tried before the special court. The names of the persons constituting the special court would be a matter of public record, and their positions on patent questions would be known. It would no longer be necessary to relitigate a patent previously held invalid;[67] a decision of invalidity would act *in rem*. Settlement of validity questions should tend to reduce dependence by plaintiffs and defendants on costly infringement actions.[68] The Patent Office would no longer have to decide whether to follow the District Court or the

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[66] Whinery, *supra*, pp. 20-91.

[67] See note 30.

[68] Reduction in the litigation burden of the District Courts would be in the public interest. The need for new ideas and new solutions is pungently expressed by two authors writing in the *ABA Journal*:

"Today, many of our courts face crises of unprecedented proportions. The population explosion has not only produced mouths to feed, but also has generated litigation of greater quantity and complexity than we have ever experienced or imagined. The Great Society is also a litigious society; and, if public confidence in the judicial system is not to be undermined, new ideas and new solutions will have to be developed." Hon. Irving R. Kaufman, *supra* note 59 at p. 1026.

"United States District Court Judge Talbot Smith of Detroit has written what he termed a 'writ of arousal' to inspire interest in relieving the federal judges of various types of litigation which make it difficult for them to give the time that is required for certain major cases with distinctly national importance." (Footnote omitted.) Hon. Leslie L. Anderson, "The Problems of the Federal Courts—and How the State Courts Might Help," *American Bar Association Journal*, Vol. 54 (April 1968), pp. 352-356, at p. 355.

CCPA,[69] with respect to the validity of patents; the CCPA's decisions on validity would be binding on the Patent Office, the special court and the District Courts. It would not be necessary to spend time educating members of the special court on complex technical matters. Memoranda and briefs would be kept to a minimum.

One of the major objectives of the special Validity Court would be to simplify the patent case. Patent experts have voiced concern that certain provisions of the Federal Rules of Civil Procedure, such as those relating to discovery, are unduly extensive and burdensome when used in patent cases. Because of their unique background and experience, the judges on the Validity Court should be better able to safeguard the parties from abuse by detecting and rejecting false or sham inquiries and confining pre-trial procedures to genuine, bona fide issues. The manner in which these, and other, provisions are used by the court to expedite the disposal of litigation, should also provide an example for other federal courts of how the Rules of Procedure could be made to work more effectively in patent cases.[70]

The Validity Court is, in a sense, an acceptance of the fact that there is a place in close proximity to our examination system for the participation of the public. Germany,[71] Great Britain,[72] and Japan[73] are examples of some of the highly industrialized countries that have revocation proceedings in the Patent Office. Although they do not usually replace the courts, serving rather as a check on their examination systems, these forums may act as a "court" for validity purposes.

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[69] *In re* Blaisdell, 242 F.2d 779, 113 *USPQ* 289 (CCPA 1957); Allen v. Watson, 114 *USPQ* 214 (D.C. 1957); Edward C. Vandenburgh, "Appeals in Patent Solicitation," *The Encyclopedia of Patent Practice and Invention Management, supra* note 13, pp. 58-65.

[70] From the following statement by Professor Wright it would appear that the chances for procedural reform would be greatly increased if it could be demonstrated by example, as proposed, that time-saving enhanced or, at least, did not adversely affect the quality of justice:

"It would be wrong to oversell procedural reform as a cure for the problems of the future. Competent researchers have shown that such reforms as the pretrial conference and discovery procedures, which were highly touted as time savers, do not in fact save court time and may indeed add to the workload of the courts. Yet the same studies that disclose this show also that these devices do lead to a better quality of justice, and this alone is sufficient justification for their use." (Footnote omitted.) Charles Alan Wright, *supra* note 30 at p. 747.

[71] *Supra* note 43.

[72] See T. A. Blanco White, *Patents for Inventions and Registration of Industrial Designs* (London: Stevens, 1962); G. Aldous, *Terrell on the Law of Patents* (London: Sweet and Maxwell, 1965).

[73] "Law No. 121, April 13, 1959," Chapter 6, Articles 123, 124, 125, *The Patent Law, EHS Law Bulletin Series,* Vol. VI, No. 6850-A (Tokyo: Eibun-Horei-Sha, Inc., 1964), pp. 48-49.

## Concluding Remarks

The elements of the Validity Court concept are in part derived from the contributions of previous proposals to increase the presumption of validity of issued patents. (It should be noted first that one of the major implications of the Dual Patent Program—the availability of additional Examiners and facilities for the Patent Office to provide a more thorough examination—has been advocated, time and again, by interested associations and eminent practitioners.)[74] The National Patent Planning Commission[75] under the leadership of Dr. Charles F. Kettering recommended that "any member of the public [should be permitted to] challenge the validity of any patent in a proceeding begun within six months after its grant," but the Commission specifically confined the proceeding to the Patent Office. Coupled with the foregoing recommendation was one for an advisory opinion from the Patent Office on the validity of patents involved in infringement suits. The Commission sought to assure "a uniform application of the yardstick" for determining the existence of an invention. The report pointed out that patent validity was passed on "initially by any one of almost a hundred District Courts in the United States, by 11 different circuit courts of appeals, and occasionally by the Supreme Court." If, during the adjudication of a patent before a District Court new facts unknown to the Patent Office are submitted, the Commission proposed that "the Patent Office should have an opportunity to revise its former opinion."

The Preliminary Draft of the Proposed Revision and Amendment of the Patent Laws which culminated in the 1952 Patent Act,[76] also included provisions for revocation. Pursuant to the Draft, the Patent Office would be authorized to "reconsider the grant of a patent"; and, after due notice and hearing, would have the right to "cancel any claim of the patent." Another provision stated: "In any action in which validity of a patent may be considered by the court, the court may require the party raising the issue" to seek revocation of the patent before the Patent Office. If the party failed to initiate the proceedings on time, he could not question validity in the action.

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[74] "Study of the Patent System," *APLA Bulletin* (Washington, D.C.: January-February 1966), pp. 33-79; Tom Arnold, "A Critique of Deferred Examination," *IDEA,* Vol. 11, No. 4 (Winter 1967-1968), pp. 580-591; "Balancing Patent Quality and Rapid Processing," *IDEA,* Vol. 10, Conference Number (1966), pp. 91-137.

[75] See "The American Patent System—Report of the National Patent Planning Commission," 78th Cong., 1st Sess. (1943) reprinted in *JPOS,* Vol. 25, No. 7 (July 1943), p. 455.

[76] *Proposed Revision and Amendment to the Patent Laws, Preliminary Draft with Notes,* House of Representatives (Washington, D.C.: G.P.O. 1950).

Although these provisions were considered too controversial for incorporation into a complete revision of the patent laws, they might have been acceptable, with some modifications, as a separate piece of legislation. The Planning Commission's recommendations strongly influenced the Draft proposals; and the similarity of the objectives and methods advocated (but not the means) in the Preliminary Draft, and in the Commission proposals, to those of the Validity Court in the Dual Patent Program is self evident.

No fundamental legislative revision would be required to incorporate the concept of a "limited contestability" of patent validity, involving a high quality Patent Office product, in the form of two different patents tailored to the needs of the two broad innovative publics, where such validity could be challenged only in a special court, and appealed to the CCPA from that court. There is no question that this proposal which comprises the Dual Patent Program would be a considerable *procedural* change in the American patent system. But it is offered because it appears to be a sound way of fulfilling the *substantive* objectives of our system under present conditions.

To enact the Dual Patent Program into law would require a number of changes in Title 35 U.S.C. Among the Chapters that would be affected are 1,[77] 10,[78] 11,[79] 12,[80] 13,[81] 14,[82] 28,[83] and 29.[84] Because of the coordinated plan in DPP, it is important that it be considered as a whole. Care must be exercised, if only discrete parts are enacted, that the effect of the remedy sought actually remains after the loss of the originally contemplated interrelationship.

We are exposing the suggestions made in this paper to the scrutiny of patent experts and will subsequently publish the results. As I stated at the outset, the objective of this paper is long-range, to provide guidelines for the future. It is hoped that our specific suggestions—or others stemming from them—will improve the quality and dependability of patents and reduce the cost, duration and unreliability of patent litigation, so that the U.S. will continue to lead the world technologically, as it has in the past, under the American patent system.

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[77] Chapter 1—Establishment, Officers, Functions.
[78] Chapter 10—Patentability of Inventions.
[79] Chapter 11—Application for Patent.
[80] Chapter 12—Examination of Application.
[81] Chapter 13—Review of Patent Office Decisions.
[82] Chapter 14—Issue of Patent.
[83] Chapter 28—Infringement of Patents.
[84] Chapter 29—Remedies for Infringement of Patent, and Other Actions.

# Economic Interests in Service Marks

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SUMMARY

THIS RESEARCH PROJECT, the third in a series the Institute now has underway in trademarks, deals with the economic interests of service industries (banks and other financial institutions, insurance, transportation and communications firms and public utilities) in marks used to distinguish their services to the public and to serve as focal points for "goodwill-identification." About 130 service firms participated in the survey. Service marks have emerged in recent years as highly important industrial property rights. In the international context, it has been only since 1958 that members of the "Paris Union" Convention have been obligated to protect service marks. Some countries require a service mark to be registered in order to be protected, others do not. In the U.S., rights to service marks are acquired under the same common law use procedures as are trademarks. Registration, after use, becomes prima facie evidence of ownership. While the number of

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service marks owned and used by U.S. service firms is not nearly as great as numbers of trademarks used by U.S. manufacturing firms of comparable size, service marks nevertheless are highly valuable to their owners, particularly in the transportation, banking and insurance industries. Basically, the service firms' housemarks, and variations thereof, are their more important and valuable marks. Some may have specialized marks to identify special services they perform. These, however, with some exceptions, are not the subject of extensive promotion as are the housemarks and their variations.

## INTRODUCTION

WHAT QUALITIES DO COMPANIES that provide primarily services, such as transportation, banking, electric power and gas, emphasize in their house and specialized marks? How do they select and promote these marks? Do they regard and use them differently than do manufacturers producing tangible products? Are service marks less frequently employed and less valuable than trademarks or more so? These and related questions are explored in this article which is based on a systematic survey of corporate service mark practices.

This report is a companion to earlier reports on the economic significance of trademarks that are used by manufacturers to distinguish their goods, to advertise them to the public, and to serve as focal points for their commercial reputations. These earlier reports resulted from an intensive research project by the Institute, and appear in the Winter (1967-68) and Fall (1966) issues of *IDEA*.[1]

In keeping with its policy of pioneering new analyses into significant aspects of industrial property rights, a field of growing public interest, the Institute now has underway another research project dealing with economic interests in the area of service marks, i.e., marks used to distinguish services, as distinct from goods.

As defined by the U.S. Trademark Act of 1946, as amended,

> The term "service mark" means a mark used in the sale or advertising of services to identify the services of one person and distinguish them from the services of others. Titles, character names, and other distinctive features of radio or television programs may be registered as service marks notwithstanding that they, or the programs, may advertise the goods of the sponsor. 15 U.S.C. 1127.

[1] "Economic Aspects of Trademark Utilization"; "The Economic Role of Trademarks and Their Utilization as Business Assets," *IDEA*, Vol. 11, No. 4 (Winter 1967-68) and Vol. 10, No. 3 (Fall 1966), pp. 472-499 and pp. 323-336 respectively.

In recent years, it has become evident that the service industries are looming as increasingly important elements in the private spending sector. The U.S. Department of Commerce, in its annually published industrial outlook report for over 100 industries, highlights the rapid growth of the services sector since World War II and the emerging importance of the service industries in our economy. Noting that "our economy is frequently characterized as service-oriented," the report states that "Nearly half of the employed population (excepting government and agricultural activities) is involved in the marketing of goods and in providing services."[2]

A thoughtful article on this subject by business executive and columnist E. B. Weiss, appearing in *Advertising Age*, emphasizes that "a growing slice of the family dollar is going for services rather than for merchandise."[3] Noting the tendency of families in our modern society to spend a decreasing percentage of their incomes for tangible possessions and an increasing percentage on recreation, and also to consider "experiences" more of a status symbol than some traditional possessions, Mr. Weiss concludes that "The great era of possessions as a major motivating force is waning. The next era will place major emphasis on experiences, on services, and on sophisticated selectivity of possessions."

J. J. Servan-Schreiber, in his best-seller, *The American Challenge*[4] refers to important research conducted for both U.S. government and private purposes which concludes that during the next 30 years most economic activity will have shifted from so-called primary (agriculture), and secondary (industrial production) areas to a third area, namely, services.

Another facet of the subject is worth mentioning. It appears that many larger manufacturing companies are emphasizing the overall service function, as well as the product aspect of their business. As noted in a recent issue of *Business Week*[5] "Industrial salesmen don't sell nuts and bolts; they sell fastening systems. They don't sell

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[2] *U.S. Industrial Outlook,* U.S. Department of Commerce (1969), p. 303. Victor R. Fuchs, in his book, *The Service Economy* (New York: 1968) notes that "During the period following World War II this country became the world's first 'service economy'—that is, the first nation in which more than half of the employed population is not involved in the production of food, clothing, houses, automobiles, or other tangible goods." P. 1.

[3] E.B. Weiss, "Bored with Possessions? Time is Next Status Symbol"; from column, "It Strikes E.B.," *Advertising Age* (April 8, 1968), pp. 60-62.

[4] J. J. Servan-Schreiber, *The American Challenge* (New York: Atheneum House, Inc., 1968), p. 33.

[5] *Business Week* (September 28, 1968), p. 80. The article also notes that: "To most industrial marketers, selling a system simply means selling a function or a result instead of just a piece of hardware. Instead of just delivering a fastener,

grinding wheels; they sell abrasive systems. The word 'system' is shaping up as the big buzz word in industrial marketing." This growing use of "systems" as a sales device by hundreds of U.S. manufacturers points up the elements of "function and service" as salient factors in marketing operations among manufacturers.

Concurrent with the growth of the services sector, is the growing use by service firms of distinctive markings and identifications to portray themselves to the public and to serve as focal points for developing goodwill.[6] U.S. Patent Office personnel estimate that in the context of increased trademark filings and registrations, service marks now constitute close to 15 percent of the total, up from about 10 percent in 1966.[7] The significance of growth patterns in the various service industries is evident from the most recent projected increases in their plant and equipment expenditures published by the Department of Commerce.[8]

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companies are beginning to think about delivering a package custom-tailored—or at least made to appear so—to a client's needs. The package could include everything from engineering consultation and time-motion reports to drilling machines and fastener applicator guns. Oh, yes, and fasteners, too."

[6] For example, some of the leading airlines have developed new distinctively identifiable service marks adaptable to music, as well as visual display. Marks such as United Airlines' "Fly the Friendly Skies of United" and TWA's "Up, Up and Away" are considered among the most valuable property rights in the airlines industry. (*Advertising Age,* June 3, 1968, p. 22.) Another example is Chase Manhattan Bank, which has even adapted its name for use as a cattle brand. In Panama, where it finances cattle ranchers by taking a chattel mortgage on their steers, the steers are marked with the Chase Manhattan brand. Panama is now a beef exporter. (*Business Week,* Jan. 18, 1969, p. 53.)

[7] Total trademark (including service mark) applications filed with, and registered by, U.S. Patent Office for these years are:

| | Filings | Registrations |
|---|---|---|
| 1968 | 28294 | 22793 |
| 1967 | 27982 | 21246 |
| 1966 | 27683 | 21304 |

Source: U.S. Patent Office

[8] For 1968, the projected increase in expenditures for new plant and equipment by electric utilities was 12% and for gas and for other utilities 21%, over 1967; transportation companies, other than railroads, were expected to show a 17% increase in capital equipment expenditures during 1968; communications firms to show about an 8% increase over 1967; and commercial firms also to show an increase, although somewhat smaller. Capital expenditures, in billions of dollars, are as follows:

| | 1966 | 1967 | 1968 |
|---|---|---|---|
| Railroad | 1.98 | 1.53 | 1.52 |
| Other Transportation | 3.44 | 3.88 | 4.55 |
| Communication | 5.62 | 5.91 | 6.42 |
| Public Utilities | 8.41 | 9.88 | 11.29 |
| Commercial & Financial | 12.74 | 12.34 | 12.56 |

Source: *Survey of Current Business,* Vol. 48, No. 9 (September 1968), Department of Commerce.

## Service Marks as Industrial Property Rights in The U.S. and Abroad

The criteria governing protectability of trademarks under the U.S. Trademark Act of 1946 also apply to service marks. The right to a service mark is established through common law appropriation and use. Service marks must be used in U.S. interstate commerce before they can become registrable under the statute (15 U.S.C. 1053). The U.S. Patent Office has established eight classes of services (100 through 107) for registration of marks. There are 52 classes of goods for trademark registrations and one (class 200) for collective membership marks. Certification marks are categorized in two classes—"A. Goods" and "B. Services."

Until the 1958 Lisbon Revision of the "Paris Union" Industrial Property Convention was brought into effect, many countries were under no obligation to, and in fact did not, provide specific protection for service marks in their laws. The original Convention, adopted in 1883, and its later revisions of 1900, 1911, 1925, and 1934 (i.e., through the London text) made no mention of "service marks" in the definition of "industrial property" (Article 1).

In some European countries a service industry had the possibility of protecting its mark under existing procedures for protecting trade names; alternatively, rights could be acquired by registering it as a trademark, but only if the law made no distinction on protection of marks used to identify products or services. Under the Convention, member countries may protect trade names without the necessity of a deposit or registration by the owner.

The 1958 Revision text of the Convention added a new Article (6 sexies) specifying that "The countries of the Union undertake to protect services marks. They shall not be required to provide for the registration of such marks."

The initiative at the Revision Conference (held in October, 1958) for inclusion of this article came from the U.S. Delegation. Initial opposition had developed from several Western European countries on grounds that the time was not yet ripe for specific recognition of service marks. Since many countries did not yet protect them, inclusion of such a provision, it was thought, might delay ratification of the new Revision text.

The United States had originally proposed wording "to permit registration" of service marks. After detailed negotiation and compromise, the above mentioned Article 6 sexies was approved by the Drafting Committee and accepted by the Conference. It was finally

drafted in a manner designed to obligate each member country to protect service marks, but according to its own methods under its domestic legislation.[9] Article 1 (2) was also amended to include "service marks" within the Convention's defined scope of "protection of industrial property." Thus, the United States and other 80-plus members of the Convention are now required to accord specific protection for marks used to distinguish services. Some countries have registration requirements for this purpose, others do not.

The "Arrangement of Nice Concerning the International Classification of Goods and Services to which Trademarks Apply," adopted June 15, 1957, was only in recent years amended to include service mark classes (35 through 42). Before then, it included only product classes (1 through 34). Fifty-plus countries now use the Nice classification system.[10] The United States is not a member of this Arrangement nor does it use the same classification system, although the U.S. Patent Office does cross-reference on U.S. registrations the comparable Nice classification.

The "Agreement of Madrid Concerning the International Registration of Trademarks," which established a central trademark filing system among the 21 member countries, encompasses service marks as well as trademarks. Although the United States is not a member of this Agreement, an American firm can utilize its procedures by filing through, and in the name of, a bona fide owned operating establishment in a member country.[11]

## Definition Factors

While there are differences of opinion among economists on the specific industries to be categorized as service-producing, the generally accepted criteria include those whose out-put consists of intangibles. Our research indicates that the largest national and multinational firms in the private service-producing sector of the economy are primarily in the transportation, utilities, communications, banking, finance, insurance, lodging and entertainment industries. Not to be overlooked, of course, as important elements in the economy are the

[9] *International Convention—Patents and Trademarks,* Hearings before Subcommittee No. 3 of the House Committee on the Judiciary, 87th Cong., 1st Sess., Serial No. 8 (June 15, 1961), pp. 93-95.

[10] For further details see *supra* note 1, "Economic Aspects of Trademark Utilization," p. 489.

[11] Details on the agreement appear in "Eastern European Trademark Systems and East-West Trade," *IDEA,* Vol. 10, No. 4 (Winter 1966-67), at pp. 467-8.

many small establishments accounting for a wide variety of personal, professional, business, repair and other types of services.

Some economists question whether transportation, communications and public utilities should be included in the services sector in their particular areas of research. Victor R. Fuchs, for example, in his studies on service employment excluded these industries because of their reliance upon heavy capital equipment and complex technology.[12] Retail and wholesale trades are identified by some economists as service industries and by others as being outside this category since they are primarily outlets for goods, not services.

Since the context of our research project is "service marks," we included within our survey those industries in the "service" classifications for which marks are registered by the U.S. Patent Office. These include transportation, communications and public utilities, among others. We did not include retail and wholesale trades since their primary orientation is toward the sale of products, either under manufacturers' or their own chain store labels or brands. Trademarks, rather than service marks, are the more important identification elements in their operations. Eventually, The PTC Research Institute plans to conduct a research project on this aspect of the wholesale and retail trades. The many thousands of small establishments, with less than $1 million in assets or annual revenues, accounting for a variety of business, repair, professional and other types of services were not included in this survey.

## Description of the Survey and Questionnaire

We sent questionnaires to 425 of the leading U.S. firms (as measured by assets or annual operating revenues) in transportation, utilities, communications, banking, finance, insurance, lodging and entertainment. As in the case of our trademark survey among leading U.S. manufacturers (by assets and sales), our sampling base included the larger U.S. service firms accounting for the greater percentage of assets and revenues in their industries.

One hundred and thirty-two (132) usable responses, including 110 filled-out questionnaires, were received. Many of the respondents who did not return a filled-out questionnaire sent us letters of regret indicating in some instances that they had no one available for assignment to this project, or, in others, that most of the questions did

[12] Fuchs, *supra* note 2, pp. 16-17.

not apply to their particular situations. Twenty-two of these firms, nevertheless, gave us good narrative information in their letters on the importance of their service marks. This information we found quite useful in the non-statistical aspects of our research. By industry, the responses from the financial institutions, transportation, public utilities, insurance, and communications companies were most nearly sufficient and comprehensive. They serve as the basis for this report.

The questionnaire employed was organized comparably to the one which we had sent to manufacturing firms in our earlier trademark survey. The questionnaire to the service industries consisted of four basic parts (see Appendix).

The first part asked for statistical data on service mark ownership and usage abroad as well as in the United States. The second part sought information on how the firm selected a new service mark and how many registrations of this mark it placed. It also asked for a brief case history on one of the company's marks—including an assessment of that mark's contribution to the company's growth. The third part dealt with the firm's experiences under prevailing law in protecting its service marks. It also asked for suggestions on further useful research that might be undertaken. Part four asked for data on service mark licensing and use. An appendix was included; this was designed to elicit information on the value to the respondents of their service marks and their expenditures on service mark policing and maintenance in the year 1967.

For convenience of organization and to facilitate comparisons and conclusions, the statistical data from Part I of our survey questionnaire will be presented and analyzed separately for each industry from which responses were received. Other parts of the questionnaire will not be analyzed by industry groups. A concluding section will offer pertinent comparative analysis.

The overall rate of usable responses which we received (132 out of 425 companies surveyed; 31%) was gratifying when compared with the return rate on other trademark research projects known to us.[13] We attempted to survey the broadest possible range of service industries but found that responses were not forthcoming or complete enough to support a meaningful analysis of every industry we initially wanted to include. However, filled-out questionnaires we received from the transportation firms (22 out of 75 questionnaires sent); public utilities (22 out of 110); banks and credit institutions (22 out of 95); and insurance companies (41 out of 79); together with the

[13] "Economic Aspects of Trademark Utilization," *IDEA*, Vol. 11, No. 4, at p. 475.

TABLE 1

NUMBER OF SERVICE MARKS USED AND REGISTERED IN U. S. BY RESPONDENTS

| Industry | Number Respondent Firms | | Basis of Measurement of Firm ($Million) | Total Marks Used | Total Registered | Sub-Totals Marks Used | |
|---|---|---|---|---|---|---|---|
| | Total | Sub-Totals | | | | House | Others |
| Airlines | 11 | | Annual Operating Revenues | | | | |
| | | 2 | Over $1,000 | 14 | 14 | 10 | 4 |
| | | 2 | $500 to $ 999 | 42 | 35 | 4 | 38 |
| | | 2 | 100 to 499 | 22 | 19 | 12 | 10 |
| | | 5 | 1 to 99 | 8 | 8 | 8 | 0 |
| Railroads | 11 | | Annual Operating Revenues Over | | | | |
| | | 7 | $100 to $1,000 | 30 | 28 | 24 | 6 |
| | | 4[1] | 1 to 99 | 6 | 2 | 6 | 0 |
| Public Utilities (Gas, Electricity and Water) | 22 | | Annual Operating Revenues Over | | | | |
| | | 9 | $250 to $1,000 | 9 | 9 | 8 | 1 |
| | | 10 | 75 to 249 | 16 | 8 | 10 | 6 |
| | | 3 | 1 to 74 | 7 | 2 | 6 | 1 |
| Insurance | 41 | | Total Assets Over | | | | |
| | | 26 | $500 to $1,000 | 104 | 80 | 36 | 68 |
| | | 15 | 100 to 499 | 54 | 34 | 36 | 18 |
| Finance and Credit | 2 | | Total Assets Over | | | | |
| | | 2 | $250 to $1,000 | 5 | 1 | 5 | 0 |
| Banks (Commercial and Savings) | 20 | 15 | Total Assets Over $1,000 | 65 | 52 | 25 | 40 |
| | | 5 | $500 to $ 999 | 9 | 1 | 6 | 3 |
| | 107 | | | 391 | 293 | 196 | 195 |

[1] Includes 2 sea transportation companies.

non-statistical information received from the others who did not return a questionnaire,[14] are sufficient, we believe, to enable the preparation of a report providing useful insights into economic interests and management practices regarding service marks (see Table 1). Three replies (out of 25 questionnaires sent) from leading communications firms that also engage in manufacturing operations contain very useful data for our purposes, although these data may not necessarily be representative of the industry. The 41 firms in the hotel and entertainment industries to whom we sent questionnaires provided no information which could serve as the basis for meaningful insights into the service mark practices of these industries.

## Industry Ownership and Usage of Service Marks

Unlike the field of manufacturing, where producers are continually developing, using, and registering new trademarks, total numbers of marks used by firms in the service industries are comparatively small. Our earlier trademark surveys, for example, showed that manufacturers in the sampling base had an average of about 67 trademarks in use in the United States and 24 abroad. As noted in Table 1, our present respondents that are strictly in the service industries have an average of only about 4 service marks in their U.S. portfolios and the same abroad (see Table 2). The three respondents in the communications industry have a higher average number of service marks. These firms are also large manufacturers of equipment necessitated by the services they perform.[15] Hence they are essentially combined manufacturing and service companies, exhibiting the characteristics of both groups.

The comparatively fewer service marks in use should not be construed to mean that service marks are less important or less valuable to service industries for advertising, sales, or identification-goodwill purposes than are trademarks to manufacturing industries. Nor are any other derogatory comparisons between service and manufacturing

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[14] Three transportation, 8 insurance, 8 public utilities firms and 3 banks provided usable information in their letters even though not returning filled-out questionnaires.

[15] A good example of this situation is the telecommunications industry. The U.S. Department of Commerce, in its report on *Growth Pace Setters in American Industry, 1958-68,* notes that "Growth in output of telephone and telegram equipment is achieved through expansion and modernization of the telephone and telegraph service industry. Increases in these services and modernization and repair of equipment sustain a high level of demand for telephone and telegraph apparatus." (Washington, D.C.: G.P.O. October 1968), p. 149.

TABLE 2

NUMBER OF SERVICE MARKS USED ABROAD BY RESPONDENTS

| Industry[1] | Number of Firms: Total | Number of Firms: Size[1] ($Million) | Total Marks (Also Used U. S.) | Sub-Totals: House | Sub-Totals: Other | Used Only Abroad; Not In U. S. (Not Incl. in Total) | Foreign Reg's Per Mark | Countries of Registration |
|---|---|---|---|---|---|---|---|---|
| Airlines (4) | 1 | Over $1,000 | 8 | 8 | 0 | 0 | 5 | Worldwide |
| | 2 | $500–$999 | 5 | 3 | 2 | 0 | 1 | Worldwide |
| | 1 | 100– 250 | 3 | 3 | 0 | 8 | 8 | Western Hemisphere |
| Banks (3) | 3 | Over $1,000 | 12 | 4 | 8 | 2 | 6–20 | Worldwide |
| Insurance Companies (4) | 2 | Over $1,000 | 6 | 1 | 5 | 4 | 1–5 | Canada, Brazil, Western Europe |
| | 1 | $500–$999 | 3 | 0 | 3 | 0 | 1–3 | Canada |
| | 1 | 250– 499 | 2 | 2 | 0 | 11 | 1 | Latin America |
| | 11 | | 39 | 21 | 18 | 25 | | |

[1] Basis of measurement of firm same as shown in Table 1 for each industry.

industries intended. The importance of service industries in the U.S. economy has already been discussed and need not be repeated. Suffice it to say, here, that in 1967 sales of the nation's top non-manufacturing firms reached $151.8 billion (about 19 percent of GNP) with profits of $9.7 billion.[16]

The majority of the service industry respondents to our questionnaire stressed the importance which their firms attached to service marks. The valuations shown for these marks were comparable to those shown for trademarks by manufacturing firms in similar income or assets categories. The lower numbers of service marks, as compared to trademarks, used by U.S. firms are primarily accounted for by the fewer varieties of services as compared to products. Consider, for example, that the U.S. trademark classification system has 52 product classes and only 8 service classes; the Nice system, 34 product and 8 service classes.

All of our respondents reported that they had developed at least one overall service housemark to be used as the foundation for their advertising and identification campaigns. Many firms had also developed several different styles of service housemarks for this purpose; these marks are tied to the company as a whole, not to any specific service it provides. Many of the respondents, in addition to their housemarks, used a variety of marks to identify specialized services they perform. Three leading airlines, for example, reported the use of 10, 18 and 20 separate service marks respectively (in addition to 2 housemarks they each used) for their special services. Six insurance companies with 1 or 2 housemarks each, reported use of from 4 to 26 separate marks for various specialized services. A few banks also reported as many as 15 and 16 separate service marks, each for certain activities. The public utilities firms generally had fewer separate service marks, as distinct from house marks, than did the other service industries we surveyed.

A more detailed statistical analysis, by industry, of the data received in response to Part I of the questionnaire, is given below and is summarized in Tables 1 and 2.

### *Airlines*

Questionnaires were sent to the 35 largest airlines, based on annual operating revenues. The 11 respondents reported use of 86 service marks, 34 of which are house marks and 52 of which are used to

[16] *News Front* (September, 1968), p. 475.

identify specialized services they provide. All but 10 of these marks are registered in the U.S. The airlines use more service marks per company in the U.S. than any other service industry from which we received returns. The average number used, based on the responses we received, was 7.8 service marks per airline, as compared to 3.3 for railroads, 3.7 for banks, 3.9 for insurance companies, 2.5 for finance companies, and 1.5 for public utilities.

Four of the 11 airline respondents also operate abroad; they use abroad a total of 16 service marks which they also use in the U.S. One of these carriers additionally uses abroad but not in the U.S. 8 service marks for certain specialized services. Each of the foreign-used marks was registered in from 1 to 8 countries by the 4 respondents.

The International Air Transport Association (IATA), to which the major world airlines belong, had a central clearinghouse arrangement for airline service marks and slogans, designed to protect the members against copying and imitation. According to the U.S. State Department, the regulations governing this clearinghouse arrangement were cancelled about two years ago because of difficulties of enforcement.

*Railroads and Sea Transportation*

The 40 largest firms in these industries, based on annual operating revenues, received our questionnaire. Of the 11 responses, 9 were from railroads and 2 from sea transportation companies. In total, the 11 companies use 36 service marks in the U.S., all but 6 of which are designated as house marks. All but 6 are registered.

*Public Utilities*

One hundred ten (110) of the largest U.S. gas, electricity and water supply firms, based on annual operating revenues, received our questionnaire. Twenty-two firms responded, listing 32 service marks, 24 of which are house marks, while the other 8 are used for special services. Of these marks, 19 are registered.

A number of municipal power and light companies reported that they are licensees for certain nationally well-known marks. These marks, licensed to local firms for use in promotion and advertising of their services, are indentified as "Reddy Kilowatt," "Gold Medallion," "Silver Medallion" and "Bronze Medallion." The first mark, used essentially as a company promotional device for electric power services, is owned and licensed nationally by Reddy Kilowatt, Inc., 750

Third Avenue, New York City. The other three, used by service companies to publicize total electric homes and other homes equipped primarily with electrical appliances which they service, are owned by the National Electrical Manufacturers Association, 155 E. 44th Street, New York City.

*Insurance Companies*

The highest rate of return on our questionnaire from any industry came from the insurance companies. Forty-one of the 79 largest firms (by total assets) to which we sent questionnaires responded. They listed a total of 158 service marks; 72 of them house marks and 86 used for varied specialized services. One-hundred fourteen of these marks were registered.

The insurance industry was one of the three represented in our service mark survey, the other two were airlines and banks, whose members used some service marks abroad. Four insurance companies listed a total of 11 of their U.S. marks (3 house, 8 for other types of services) which they used abroad. Additionally, some of these firms had developed and were using 15 marks solely for foreign markets, mostly in Latin America, but also to some extent in Canada and Western Europe. Each service mark used abroad was registered in anywhere from 1 to 5 countries.

*Banks and Other Financial Institutions*

Twenty out of the 70 largest commercial and savings banks (by total assets) to which we sent questionnaires responded. They reported use of 74 service marks (31 house and 43 varied services), 53 of which were registered.

Three of these larger banking firms with extensive foreign operations reported the use of 12 of their marks overseas, each mark registered in anywhere from 6 to 20 countries. Additionally, they used, in 10 to 15 countries, 2 marks not used in the U.S.

Two finance and credit institutions (out of 25 solicited for information) responded. They use 5 house marks, 1 of which is registered.

*Others*

Three leading U.S. communications firms (based on annual operating revenues) reported the use of 84 service marks (56 house, 28

varied), together with 55 trademarks which they also used in related manufacturing operations.

They also reported that 28 of their U.S. service marks were used abroad; each was registered in from 1 to 75 countries. Additionally, they had developed 54 separate service marks solely for their foreign markets.

## Service Mark Selection

In Part II of the questionnaire, we asked each recipient to describe briefly the procedure for selecting new service marks.

As in the selection by manufacturers of trademarks for their products, much "brain storming" went into the selection of proper marks by the service industry respondents. The need for distinctive, image-creative names capable of developing strong customer loyalties and of building prestige for the companies was paramount in the selection process. Another consideration important to the service industries is the many marketing media to which the marks have to be adapted. While these industries are not concerned with packaging or appearance on shelves, as are manufacturers who use trademarks, they are nevertheless highly concerned with other display media—audio as well as visual. Adaptability of service marks to radio, as well as television, newspaper, and magazine advertising were of prime consideration.

It was important that the "right" name—one calculated to invoke in the public mind a distinctive and salutary image of the service rendered—be created and publicized. Typical of many replies was that from a public utilities firm. This stated: "Six criteria were established by which to judge all proposed candidates (for service marks); (1) simple, (2) strong, (3) unique, (4) modern, (5) versatile, and (6) appropriate. The symbol which we felt best met these criteria was the one we selected."

The selection pattern was generally similar among most firms. Their advertising, sales, and law departments worked closely in developing, searching, and appropriately using and advertising the mark. Within these contexts, many firms used special committees for "selection, final approval," et cetera. Some firms used outside consultants in the initial design and development of a mark.

A few of the respondents, among the railroads, insurance companies and public utilities, were unable to answer our question on selectivity for an interesting reason. These were using marks that had been in existence for 50 years or more and were therefore unfamiliar with

mark selection techniques and processes that had been employed that long ago.

A variety of needs had prompted certain firms to adopt a number of uniquely diversified service marks. The airlines, as previously noted, developed certain service mark slogans for special adaptation to music in their radio and television advertising. Special service marks to identify air freight, cargo, and passenger shuttle transportation were also developed. Several banks reported the adoption of special marks to identify their new credit and charge services. Other banks reported the use of special marks to identify different types of savings and checking accounts they offered.

The recipients of our questionnaire were also asked to report the number of new U.S. service mark registrations they had received in 1966 and 1967. The results are tabulated below:

| Industry | No. of firms Reporting | U. S. Registrations | |
|---|---|---|---|
| | | 1966 | 1967 |
| Airlines | 3 | 1 | 3 |
| Railroads | 2 | 3 | 3 |
| Public utilities | 2 | 1 | 1 |
| Insurance companies | 10 | 13 | 18 |
| Banks | 5 | 3 | 8 |
| Communications | 2 | 9 | 10 |

On the average, among the respondents engaged solely in rendering services, the insurance companies were in the forefront during these two years in registering new marks. The railroads were next, followed by banks and airlines. The communications respondents, which also engage in manufacturing, averaged 9.5 service marks per company, the highest in the sample.

## Case Studies

In Part II of the questionnaire we also asked for a case study of one service mark, to be selected by the responding company. Such a study if properly developed, would cover how and why a particular service mark was selected, how it has been promoted and protected, and how it had contributed to company growth and present success. The response rate to this request was good but the replies do not lend themselves very readily to summarization.

In all, about 70 companies provided these case histories. Their descriptions naturally varied in depth and emphasis but nearly all indicated that their marks had been extensively promoted by advertising, by use on company property and stationery, and in numerous other ways. One large banking firm, for example, stressed the use of promotional items such as tie bars, cufflinks and key chains bearing its service mark symbol, noting that the appearance of these items in the U.S. and abroad immediately identified the bank by the symbol alone. A few companies provided us with detailed brochures, press releases, and other explanatory material they had distributed to the public concerning steps taken to create new corporate symbols and to identify themselves to the public as modern, progressive institutions.

A number of the marks described were relatively old ones that, by long usage, had become closely identified with the company and the image it sought to convey to the public.

A surprising number of companies had adopted new or revised service marks during the last few years. The reasons most commonly given for this step were to update the company image, to make identification easier, or to better symbolize the range and scope of current company activity. The bulk of these newer service marks were distinctively styled monograms presenting an abbreviation of the company name.

The following statements typifying the reasons governing selection of new service marks are taken from the replies of four respondents—an airline, a bank, an insurance company, and a public utility firm, respectively:

> One mark (a slogan type) recently promoted extensively in advertising was developed from a popular song for which new advertising lyrics were written. The mark was selected because of the popular song's appeal. The mark was thus promoted through the song lyrics, in print, and on TV. The promotion was, by market research standards, apparently effective in building up strong public identification of the mark with our company.

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> Our present logo idea originated in 1958 with the use of a _____ and our bank's name written on it. In 1964 this mark was altered to make it more modern. The mark has significance to the focus of our bank's geographic service area which is _____. It is used in all advertising, bank signs, letterheads, and forms. The redesign of the mark in 1964 was announced with statement inserts sent to all account holders, and several newspaper ads.

---

> In 1959 our management determined a need for revision of our

service mark to reflect with more accuracy and memorability the current and future marketing goals of the company. Following a 4-month exchange of ideas and executions with our advertising agency, we adopted and subsequently registered the mark. It was selected because it describes all-line insurance protection unforgettably. It has been promoted with the fullest possible range of advertising and merchandising tools (logotypes, letterheads, actual symbols of the mark in 8 versions, lapel pins, etc.). Resident counsel has managed, to date, to protect the mark without litigation.

---

Several years ago our existing mark was felt to be old fashioned. It did not properly reflect the character and nature of the company. With this in mind a designer was employed (after several were interviewed). A new mark was developed which identifies the company well and also projects a feeling of modernity, strength, and progressiveness. After being registered, the mark was and is used on all company property, equipment, forms, bills, letterheads, etc. It of course is used in all advertising and on all company publications, files, etc. We believe this mark is important not only in identification but also in projecting the image we desire.

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The nature of the case study marks and of the qualities they emphasize is one of some interest; an attempt to summarize this information is contained in the following table:

SERVICE MARKS COVERED BY CASE STUDIES

| Nature of mark | Public Utilities | Transportation Companies | Banks | Insurance Companies | Totals |
|---|---|---|---|---|---|
| Geographical reference | | 4 | 2 | 1 | 7 |
| Functional reference | | 2 | | | 2 |
| Arbitrary symbol | 5 | 6 | 8 | 7 | 26 |
| Abbreviation of company name | 7 | 3 | 3 | 4 | 17 |
| Symbolic | 2 | | 7 | 9 | 18 |
| Slogan | | 1 | 1 | | 2 |
| Personal reference | | | | 2 | 2 |
| | | | | | 74 |

As may be seen from the table, the most popular type of service mark, from the standpoint of these respondents, is some form of specially designed arbitrary symbol. This may or may not incorporate the company name or initials. Such a mark is of course "strong" in the sense of being relatively easy to protect and readily distinguishable.

However, these marks were precisely the ones needing periodic updating, which means in each case new outlays to obtain recognition by consumers.

A surprising number of the marks covered by case histories were symbolic. Examples would be the stalwart wildlife animal used by an insurance company or a picture of a nationally well-known public edifice used by a bank. Insurance companies and banks, perhaps because of the intangible nature of their services, are especially prone to employ symbolic marks. Utilities and transport companies use symbolic logos less often although they do employ them in some cases.

Older marks were sometimes selected rather informally by company officials on the basis of suggestions from employees or customers. As indicated earlier newer ones are much more carefully researched and are selected after consultation with professional designers, advertising representatives, and committees of corporate officers.

Virtually all the authors of the case histories considered their companies' service marks as extremely valuable properties. As will be more fully described in the next section, they documented this view with comments on the large outlay made to promote and defend their marks, on the importance of the images these marks conveyed to the public, and on the qualities, such as stability, modernity, or integrity, which they felt these marks represented and with which their companies wished to be identified. Despite the nearly uniform opinion that these marks were extremely valuable, very few respondents felt able to fix a precise monetary value on this intangible property. Goodwill is rarely represented in company accounts unless it has been recently purchased.

Perhaps more as a curiosity than of economic significance is the information obtained as to when service marks in current use were first adopted. Some 43 corporations provided information on this point.

The age distribution is markedly bi-modal. Four of the marks were adopted before 1900; nine or 21 percent were adopted before 1920. We have no case in the present sample of an existing service mark adopted during the 1920's and only one case dating from the 1930's. Whether there was relatively little interest in service marks during those decades or whether the marks adopted then have since been modernized is not clear from the data received.

The largest concentration of adoption dates reported, some 19 cases, has been since 1960. At least half of these cases represent modernization of marks previously in use. An additional 12 marks were adopted

during the 1950's, making 30 cases or nearly 70 percent of the marks in the sample which are under 20 years old.

According to one respondent whose company had adopted a new mark about 10 years ago, aggressive promotion will mean about 30 percent consumer identification (of the maximum possible) within three years and about 70 percent in five years. This experience, however, relates to a company whose business is primarily regional rather than national. For national identification the time could be expected to be somewhat longer. Also the idea of maximum possible consumer identification is a vague one. We should expect that well conceived efforts to promote a mark would produce results that approximate a hyperbolic curve in which recognition increases slowly at first, then shows increasing returns to scale of outlay, and subsequently flattens out to reveal diminishing returns to scale. This pattern is suggested by several respondents in their case histories.

## Experience With Existing Law

Part III of the questionnaire asked for specific examples of problems or difficulties that companies had encountered under existing law in protecting their service marks, in registering them, either in the U.S. or abroad, or in other areas. We had expected that this section would produce quite an extensive list of problems but actually it yielded very little. The great majority of the respondents who answered this section, more than 80 percent, reported they had encountered no serious problems either in registering or protecting their service marks, both in this country and abroad.

The minority of companies who did report specific difficulties—18 percent of those reporting—had experienced more problems in registration than in policing or protecting their marks. Among the registration problems mentioned were (1) alleged delay in the Patent Office registration procedure, (2) validity of the registration only in the industry in which they were engaged, and not in other industries, (3) a claimed tendency for Patent Office Examiners to broaden the grounds for rejecting registration administratively, and (4) lack of a central index for researching marks in use whether registered or not. Mentioned by single respondents in each case were conflicts between federal and state trademark laws, unauthorized sub-licensing of marks by licensees, and too many or too few classes for registration.

In their foreign experience the problem most frequently mentioned was inability to register service marks directly in some countries;

another problem encountered was prior registration of their marks in certain countries by individuals who had no plans to use them but merely wished to collect payments from the marks' real owners. This apparently is a fairly widespread practice in a few countries that have only registration systems with no use requirements.

The type of problems reported and the failure of complaints to cluster on a few specific points would seem to indicate that existing law is working quite well and is not in need of major revision, so far as service marks are concerned. Surprisingly, a number of the marks with which companies have had no difficulty have never been registered and hence lack statutory protection. Only two cases were reported in which court action had been taken to protect a properly registered mark.

Unlike both the fields of patent and copyright law, where a substantial body of opinion favors updating the statutes, even though there is a lack of agreement on which specific amendments are desirable, trademark law is apparently considered satisfactory, with respect to service mark protection.

## Licensing

Our inquiry into licensing of service marks was limited to licenses in effect or licensing agreements made during the year 1967. Only slightly over 10 percent of the companies surveyed had such licensing agreements in that year. The remainder, nearly 90 percent, did not.

Among the companies with licenses for their service marks, 80 percent of these license agreements covered 3 or fewer marks. Only 2 companies had more than 5 marks under license. One of these companies had more than 25 marks licensed.

The licensees in most cases were subsidiary companies; the license agreements were not, in all cases, the result of arm's length bargaining.

As in trademark licensing the main concern of the licensor is to maintain the quality of the goods or services sold under the mark. We have too small a sample of licensing terms in this survey to draw significant conclusions.

Our results do suggest that service mark licensing is relatively uncommon and is not generally regarded as a source of additional income.

## SERVICE MARK VALUES

As in our trademark survey, we attempted to secure from respondents to this service mark survey quantitative estimates of the values they attributed to their service marks. Many of the respondents, particularly in the transportation, banking, and insurance industries, noted that their service marks constituted extremely valuable property rights but that estimates or calculations of their values were not feasible. Several firms, quite sympathetic to our objective, were nevertheless restrained by inherent difficulties from providing even an approximate figure. Said one leading insurance company, with total assets of over $1 billion:

> Although we appreciate your appetite for precision, we cannot give you a rational dollar estimate of the value of our service mark. We regard it, quite literally, as invaluable.

In the relatively few cases where an effort was made to assign a monetary value to the service mark, these values ranged from $250,000 to $5 million.

Of perhaps more interest than the few valuation figures obtained were the respondents' opinions about the qualities of their service marks which gave them value. These opinions naturally ranged quite widely, but some of them are summarized in the following table:

ELEMENTS OF SERVICE MARK VALUE
(as seen by respondents)

| Element Contributing Value | Number of Respondents Mentioning This Element |
|---|---|
| Easy identification by consumers | 14 |
| Suggestion of tradition | 2 |
| Suggesting progress and innovation | 6 |
| Encouraging travel | 1 |
| Suggesting broad range of company services | 2 |
| Graphically portraying function of business | 3 |
| Connnoting quality of company services | 9 |
| Number of responses summarized | 37 |

As might be expected, public utility companies could contribute little to the estimates of service mark values. Several utility respondents pointed out that, as regulated industries, they could make only limited efforts to add to profits by expanding sales. Banks and

insurance companies are also regulated, but the purpose of the regulation is primarily to protect the public against financial loss rather than to limit profits to a reasonable return on investment. Transportation companies, especially airlines, are the most sales conscious companies in our sample. They were also, generally speaking, the most aggressive promoters of their service marks through advertising, conspicuous display, et cetera.

Those companies that did respond to our inquiry about service mark values, even where no figures were given, were quite candid in describing the importance they attributed to service marks in their companies' growth patterns. Typical of such responses was that made by a firm with billions of dollars of assets, offering a wide variety of financial services. It noted, with respect to its well-known house mark:

> Over the years the Company has expended literally millions of dollars in advertising and promoting the mark in all the principal advertising media, including newspapers, magazines, television, and radio. For many years the mark has been and is presently identified with the business activities conducted by the company and has acquired a secondary meaning, so that it is universally identified with the company's activities in the fields of insurance, corporation financing, mortgage lending services, investments, securities, and real estate. In view of the very substantial sums spent in advertising and promoting the mark and the fact that the public associates the mark with the Company and its services, the mark obviously is of inestimable value.

Our impression is that the very few marks owned even by large service firms, as compared to manufacturing firms in similar size ranges, make it relatively easier for the service firm to establish a relationship between the growth of its activities and the reputation of its identifying marks. Nevertheless, few service firm respondents offered comment on the values attributed to corollary marks they had established for special services. The overall house mark was the dominant identifying factor extolled as the symbol of the firm's goodwill and the focal point of its public image.

In our manufacturing survey, we found, in many cases, that certain product marks of a firm had become more prominent and well-known than the firm's house mark or trade name. In some cases, this resulted in a firm's changing its corporate name or house mark to that of the well-known product name. In other cases, the firm undertook a vigorous campaign to publicize its corporate name and its house mark as the source of the well-known trademarked products.

So far as we know, this situation has not occurred in the service industries we surveyed. Generally speaking, a service firm, at the

outset, will develop a house mark, and any publicity or advertising campaigns that it conducts will be centered around that mark, or a subsequent variation. The nature of a service industry does not readily lend itself to a firm's developing the type of specialized service or corollary mark that will eventually become better known than the house mark or company name itself. The airlines industry, for example, which has been in the forefront among service industries in developing varied corollary marks, has prominently publicized the latter, particularly in musical slogans. Foremost in their advertising and display campaigns, however, is the airline corporate name and/or basic house mark itself. The corollary or specialized service mark—whether a musical slogan on radio or TV, or an identity mark in newspapers, magazines or other advertising media—leaves no doubt in terms of its presentation as to the airline that owns it and provides the service identified by the mark.

Some of the manufacturing firm respondents to our earlier trademark survey brought to our attention certain formulae that they used as "rules of thumb," with some variations, in valuing a trademark.[17] The respondents to our service mark survey offered no such specific formulae; however, there was a general consistency of criteria in valuation based on advertising and promotion costs, estimated replacement costs, and estimates of goodwill to the firm.

Certain firms did provide us with specific figures calculated to show the value of their service mark portfolios.

A major international airline, with total operating revenues of about a billion dollars, operating in Europe, Africa and Asia, as well as the U.S., valued its service mark portfolio, consisting of two house marks and 20 special service marks, at $20 million based on the "amount spent for all advertising last year." A smaller U.S. airline with operating revenues in the $25 million to $50 million range valued its 2 house marks at $150,000, based on their establishment costs.

Three banks (all with assets of over $1 billion), which provided specific figures on service mark values, used different criteria for their calculations. One bank, which valued its house mark at $1,300,000, did so on the basis of the mark's replacement and initial advertising costs. It assigned only $20,000 to the value of a special service mark also carried on its books. Another bank assigned the value of $10 million to its two service marks based on the cost of their "first 10 years of advertising." A third banking firm said that: "To the extent that its

[17] *Supra* note 13, pp. 485-6.

two service marks (1 house; 1 special service) designate or sum up the quality of this institution, all of its $2 billion in assets could be set as their value, but we cannot segregate a portion of assets to 'goodwill.' "

Three insurance companies, each with total assets of over $1 billion, provided some interesting calculations of the value of their house marks. One firm, valuing its mark at $5 million, stated: "Our judgment is that in theory we would be willing to spend this amount in legal fees to prevent another financial company from using our house mark."

Another firm, valuing its mark at $2,500,000, did so on grounds that the mark

> is familiar to 25 million American adults, and that in the main favorable qualities are associated with it by these people. If such a position is valued at a mere 10 cents per head it will support the estimate here offered.

A third firm calculated the value of its house mark at $250,000, based on "10 percent of (the firm's) national advertising budget for the past seven years." A fourth insurance firm, with total assets in the range of $250 million to $500 million, also valued its house mark at $250,000, calculated as the "cost of (its) introduction and use to date and estimate of the cost to 'undo' it and introduce another to today's level."

Most of the public utilities firm respondents stated that they were unable to provide any estimate of the value of their service marks, although they readily admitted that service marks were important elements in their promotional, advertising and image-building activities. Typical of such statements was that, below, of a public utilities firm with total operating revenues in 1967 in the category of $500 million to $1 billion.

> The (firm's )symbol alone, without any inscription, has become so identified[18] . . . with the Public Service system and its services that the words no longer need to be added to the symbol.
> The symbol appears on all buildings, buses, and service vehicles. It is generally used on all advertising.
> Its monetary value to a regulated company cannot be measured.

Another public utilities firm, in the $100 million to $250 million range, while unable to quantify the value of the mark it is using, noted, nevertheless, that

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[18] The geographic locality of the firm's operations.

> We are getting good identity from this symbol. A recent survey gave us these facts:
> —97% of respondents were aware of the symbol
> —79% of respondents could name (the mark)
> —87% of respondents could name the company using the symbol.

One smaller public utility firm with operating revenues in the $1 million to $25 million category gave us a specific figure—calculating the value of its house mark at $50,000, the "estimated cost of redesigning and replacing the present emblem in its various uses."

A few comments from some additional respondents concerning the value of their service marks, even though not quantified, are worthy of note in this report.

A large railroad headquartered in the midwest, which had adopted a new mark in 1967, stated:

> As far as putting a dollar value on this new corporate symbol, we know of no way this can be done. We do know our new mark has gained for us a great deal of favorable mention and some valuable free advertising. To many people who never deal directly with the railroad, a passing ..... boxcar painted ..... and carrying the new symbol *is* the railroad. In this case the symbol has an incalculable value. Even in the case of a shipper who has daily contact with the railroad, the mark serves as a reminder that he is dealing with a progressive railroad that has outgrown its old trademark.

A New York City-headquartered bank said of its house mark which was adopted about 10 years ago:

> The symbol is now fully integrated into all forms of ..... Bank visual communications, television commercials, magazine and newspaper advertisements, booklets and folders, internal and external bank forms, on signs, and buildings.
> A survey made by an independent designer a few years ago indicated that the public in New York City readily identified the bank with this symbol without the aid of the lettering of the bank name. It is now estimated that the symbol is being regularly exposed to millions of individuals around the world each year and its value as an identification of the bank and its services is incalculable.

A well-known insurance firm, commenting on its nationally famous house mark, noted that

> Having become recognized by some 78 percent of the general public (according to recent awareness studies) its (the mark's) value to the company could only be measured in terms of developing new symbolism and promoting it to the same awareness levels. In the face of increased advertising competition and cost (disregarding any increase in efficiency) its dollar value is inestimable. This also holds

> true relative to the emblem's contribution to the (affiliated) companies' growth and positions within the industry. Certainly the total cost of promotion alone would be only a small part of the (affiliated) companies' marketing operation.

Another leading insurance company stated that

> Our service mark has helped to identify and promote our Company and, therefore, has helped contribute to growth and to our present position in the industry. We have policed the mark directly and indirectly, with oppositions in the Patent Office and by direct actions. The mark has become extremely valuable, although we have assigned no dollar book value.

## Conclusions

The growing awareness among leading firms in the service industries of the need for distinctive symbolic elements for advertising and goodwill-identification purposes is highly evident from our research. Although marks to identify services have probably been in existence as long as trademarks to identify goods, the concept of service marks has for long been a relatively dormant and perhaps misunderstood aspect of the industrial property rights field.[19] Only in recent years have the practical aspects of service mark protection emerged, not only in management planning, but also in national and international protective frameworks through legislation and treaties.

As in the case of the larger manufacturers using trademarks, the larger service firms are also willing to invest heavily in the development of one or perhaps several distinguishing housemarks. Here the similarity stops. The leading U.S. manufacturing firms with widespread markets in the U.S. and usually abroad, having ongoing programs for developing new or improved products, will also be continually developing and promoting new product marks. With a few possible exceptions, notably in the airlines industry, the service firms are much less concerned about the continuing need to develop new marks for new services, since the latter are either few, or are not too distinguishable within the business of the firm. In most instances, once

[19] A few of the replies we received exemplify this situation. Despite the description of the term "service mark" in our questionnaire and forwarding letter, some larger firms that use marks to identify their services (as evidenced by their literature) asked us whether their marks were, in effect, identifiable as "service marks." While it seemed to us that the marks in question were distinguishable as such, and that the firms were primarily, if not exclusively, engaged in services, it was suggested to these respondents that they consult with legal counsel. Several other service firms, using what appeared to us to be distinctive marks and symbols in their letterheads, flatly stated that they did not have or use service marks.

a service firm publicizes its housemark or variations thereof in advertising campaigns, any new marks developed for specialized services usually become "taggers on."

Many of the leading service firms we surveyed, particularly among banks, public utilities, and some insurance and transportation companies, were local and regional in their operations. Thus, there appeared to be more of a tendency to gear service marks to a local or regional, rather than to a national or international public, as in the case of trademarks. In many instances the service mark became the focal point of a company's attempt to identify itself with services to the local or regional community. It was sufficient and highly gratifying for many of the bank, public utility, or insurance company respondents to our questionnaire to learn that identification surveys had given their marks high degrees of recognition within their city, state or regional areas of domicile.

Very few service firms have registrations abroad. A few U.S. airlines, banks and insurance companies with international operations have such foreign registrations. Most individual service firms are not geared to foreign operations and it is doubtful that we will see any substantial rate of increase in foreign service mark registrations by U.S. firms, even as the services sector of the U.S. economy expands.

Size of a service firm is not necessarily a factor in the number of marks it uses. Our survey indicates that most firms have from 1 to 3 varieties of housemarks (some airlines have 5) with no particular relation to their size. The number of specialized services and related marks used by a firm likewise does not seem to be closely correlated with the firm's size. This is a striking contrast to manufacturers and their trademarks, where our earlier survey showed quite clearly a direct correlation between company size and number of trademarks owned in the U.S. and abroad. Generally, the larger the manufacturing firm, the larger its trademark portfolio.

Service firms have typically encountered few problems in registering or in policing their marks. Existing law, in this particular area, appears to raise few complaints and to occasion little demand for reform or amendment.

Service marks are only occasionally licensed and then usually to subsidiaries. They are less an article of trade than are other forms of industrial property.

Like trademarks, service marks represent substantial sums in goodwill to their owners; but precise estimates of these goodwill values are seldom made because of conventional accounting practices and absence of standard valuation formulae.

# APPENDIX

THE PTC RESEARCH INSTITUTE
THE GEORGE WASHINGTON UNIVERSITY

Questionnaire on Service Marks

Part I. Statistical Data on Service Mark Ownership and Usage

1. Does your company use one or more service* marks in connection with its services and/or sales? Yes _____ No _____
2. (a) What are your principal types of services (transportation, communications, public utilities, insurance, banking, etc.)? _____

   (b) If your principal services are transportation, communications, public utilities or those of a non-financial type, please check below your total operating revenue in 1967. If your principal services were banking, insurance, credit or others of a financial type, please check below your total assets in 1967.

| | | | |
|---|---|---|---|
| Under $0.5 million | _____ | $75–100 million | _____ |
| $0.5–1 million | _____ | $100–250 million | _____ |
| $1–25 million | _____ | $250–500 million | _____ |
| $25–50 million | _____ | $500–1 billion | _____ |
| $50–75 million | _____ | Over $1 billion | _____ |

   (c) Do you manufacture any products that are sold under trademarks?**
   Yes _____ No _____
   (d) If answer to (c) is "yes," how many trademarks do you now use? _____
   Also, what is the approximate annual sales value of your trademark products? _____ Is this figure included in the figure you checked under 2(b)? Yes _____ No _____
3. Please fill out the following chart regarding the number of service marks your firm uses:

| | House Marks | Other Service Marks |
|---|---|---|
| (a) Approx. No. Used | | |
| (b) No. Registered in U. S. (Principal Reg.) | | |
| (Suppl. Reg.) | | |

* The term "service mark" means a mark used in the sale or advertising of *services* to identify the services of one person and distinguish them from the *services* of others.

** As used herein the term "trademark" includes any word, name, symbol, or device or any combination thereof adopted and used by a manufacturer or merchant to identify his *goods* and distinguish them from those manufactured or sold by others.

| | House Marks | Other Service Marks |
|---|---|---|
| (c) No. of marks shown in (b) also registered abroad* | | |
| (d) No. of marks registered abroad but not registered in U. S.* | | |

4. (a) On the average, about how many foreign registrations do you acquire for each service mark you register in the U. S.? _____

(b) What are your more important considerations in deciding whether or not to register abroad? _____

_____

_____

_____

Part II. Data on Service Mark Selection

5. (a) Describe briefly your procedure for selecting new service marks.

_____

_____

_____

_____

_____

(b) How many service mark registrations were issued to you in the U. S. in 1966? _____ And in 1967? _____

* Please list countries on separate sheet, or if impractical, by regional areas (i.e., Western Europe, Eastern Europe, Africa, Latin America, Middle East, Japan-Korea, Asia other, Canada, Australia-New Zealand).

6. Please write a brief case history of one of your company's service marks, indicating how and why it was selected, how it has been promoted and protected, what value (including goodwill) you would assign to it, and how it has helped contribute to the growth of your company and to your company's present position in your industry. The mark need not be identified.

_____

_____

Part III. Experience with Existing Law

7. Would you describe briefly the major problems you have encountered regarding protection of your service marks because of possible deficiences in existing law: in the U. S.? _____

_____

abroad? _____

_____

8. Have you experienced any difficulties regarding the following problem areas? If so, please explain briefly.

(1) Lack of comprehensive reference sources for used but unregistered marks:

_____

_____

(2) Registration of marks by foreigners to the detriment of U. S. business interests:

_____

_____

(3) Lack of uniformity in classification among world trademark and service mark laws:

_____

_____

(4) Others:

_____

_____

9. Have you any suggestions for research in any aspect of the service mark or trademark field that you believe would be especially useful to you?

_____

_____

_____

Part IV. Data on Service Mark Licensing and Use

10. (a) Did you license any service marks in 1967? Yes _____ No _____

(b) If "yes", please fill out the following:

| Type of Marks Licensed in 1967 | In U. S. | | Abroad[1] | |
|---|---|---|---|---|
| | No. | Type of Licensees[2] | No. | Type of Licensees[2] |
| House Marks | | | | |
| Other Service Marks | | | | |

[1] If possible, please list on separate sheet countries or regional areas, as set forth in question 3(c) and (d), where marks are licensed abroad, by above types.

[2] Indicate whether licensee is subsidiary or otherwise affiliated; or whether non-affiliated.

(c) Please describe briefly those salient features, other than royalty provisions, generally included in your licensing agreements:

_____

_____

_____

_____

What is the usual royalty rate for your licensees? _____

_____

11. If your company bought or sold assets in the past five years that included service marks, please fill out the following:

| | In U. S. | Abroad |
|---|---|---|
| Total price of assets bought | | |
| Price included for marks and value of goodwill | | |

| | | |
|---|---|---|
| Total price of assets sold | | |
| Price included for marks and value of goodwill | | |

## APPENDIX

Recognizing that fewer service marks are used by service-type firms as compared to the greater numbers of trademarks used by manufacturing firms, we are highly desirous of obtaining specific information on service mark values and maintenance costs. The following questions are designed for this purpose; while they may be difficult to answer, no body of information of this sort exists. Therefore, we are setting the questions forth as an appendix for your special consideration. The tabulated material may be highly valuable to you in comparing your activities with general practices.

A. It is if great interest to the Institute to learn whether a firm can quantify economic value of service marks used for the purpose of identifying the firm's services and in representing their reliability and quality. While we realize the difficulties of assigning dollar values to the "goodwill" in service marks and their value as business assets, we would appreciate any estimate of approximation of such value that could be provided. Please indicate, if possible, the "goodwill" your firm attributes to its service marks by placing estimated dollar figures (representing such goodwill) in the following boxes, and describe briefly the basis upon which such valuation was made.

| | Value | Basis for Valuation |
|---|---|---|
| Your house marks | | |
| Your other service marks | | |

B. What was your approximate total outlay (U. S. dollars, including estimated attorney fees) on service mark policing and maintenance in 1967, broken down as follows?

| | Outlay in U. S. | Outlay Abroad |
|---|---|---|
| Confusion surveys | | |
| Clipping services and other surveillance | | |
| Opposition proceedings | | |
| Infringement suits | | |
| Interference actions | | |
| Cancellation proceedings | | |
| Out-of-court settlements | | |
| Renewal fees | | |
| Others (specify) | | |

# Proposal for Patents Having Shortened Term

HARRY C. BIERMAN*

THERE HAVE BEEN PENDING before both the Senate and the House of Representatives bills which, if they become law, would drastically change our patent system. While some of the proposed changes have merit if we take the bills as a whole, they discriminate in important respects against a substantial segment of our economy.

In the past, the individual inventor, the small manufacturer, and individually owned laboratories have produced many and important inventions which have contributed measurably to the growth of our industrial establishment. Such persons generally have limited resources and facilities so that any increase in the cost of obtaining patents will adversely affect their ability to adequately protect their inventions. On the other hand, large corporations with their patent departments, large resources, and the opportunity of passing on their costs to the purchasing public are well able to bear the increased cost of obtaining patents on their inventions.

The bills which have heretofore been before the Congress introduce a number of factors which, it is quite obvious, will greatly increase

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such expense. This is in addition to the already greatly increased cost as a result of the operation of recent revisions in the law, wherein Patent Office fees have not only been increased but, in some cases, have been multiplied. Also, new fees have been established, such as for the filing of briefs on appeals. (And if the fees are not paid, the appeals will be dismissed without consideration of the merits thereof.) These increases have already in a short time had an impact on the individual so that he is more reluctant to file patent applications because of cost. If the proposals in the pending bills become law, the individual will really be discouraged.

We believe that there should be a provision in the law which will be for his benefit and which will enable the individual to obtain a substantial return from his investment in patents, or at least, give him the clear prospect of a favorable return. It is here proposed that a provision be introduced into the patent law which would inure to the benefit of both the inventor and the public, as follows:

> After the allowance of an application for patent and during the period allowed by law for the payment by the applicant of the issue fee, the applicant may elect to have the patent issue for a period of nine years, in which case the patent shall be considered to be valid in all respects except that in a suit for infringement thereof the defendant may defend on the basis of public use or publication of the invention in the United States prior to the making thereof by the patentee.

This amounts to an agreement by the inventor to cut off or forego the last eight years of his 17-year patent, which are usually the most lucrative years of a patent. In addition, the people of the United States would gain the benefit of eight years more of free use of the patent.

In return for this substantial concession to the public by the inventor, he is to receive the benefit of a fully valid patent for the shortened term. No longer can the court in a suit for the infringement of the patent hold that, although the invention is not anticipated by the prior art, the improvement does not rise to the dignity of a patentable invention. No longer can the court hold a patent to be invalid on the basis that each of the elements was previously known in other combinations and there is no invention in regrouping the elements into a new device. Also, the court will be unable to hold that, although the invention is not found in the prior art, it would be "obvious" to one skilled in the art to which it appertains. The defendant in such a suit would not be entitled to use any of the other defenses normally open to him which might directly or indirectly be used to render the patent invalid. Of course, in the suit for infringe-

ment, it would be incumbent on the plaintiff to prove that the patent was infringed.

When an application for patent has been allowed, it has been subjected to an intensive examination, both as to form and as to novelty and utility. The Examiner had at his disposal not only all the patents issued in the United States and most of the patents issued by the rest of the world, but also all of the major publications all over the world. He is a well-educated, highly-trained, fully indoctrinated individual who searches the art completely and intelligently. He is assisted by consultation with others, so that usually he has been able to locate all of the pertinent literature on the matter he searched. Because of this, according to the present law, the patent which issues is presumed to be valid. From a practical point of view, it is most unlikely that there exists in the public domain any publication which could be anticipatory of any invention, and which was not found in such a search.

For the purpose of the above proposal, this presumption is conclusive, giving the advantage to the inventor in compensation for his loss of the eight final and ordinarily most valuable years of his patent term.

There is a further favorable result arising from this proposal—to the inventor, to the public, and to the courts—in cases of suits for infringement of patents. Since there would be only the question of determining (1) if the alleged infringing item reads on the claims of the patent, that is infringement thereof, and (2) the question of public use prior to the invention, proceedings in the courts would be greatly simplified. Depositions for discovery prior to trial, oral testimony at the trial, motions of various sorts, would either become unnecessary or would be greatly reduced in number and volume. The necessity or even the desirability of expert witness testimony would be practically eliminated with the attendant saving of expense to all concerned therein.

The time consumed at the trial would be shortened drastically, the time of the attorneys for the preparation of the case would be greatly reduced, and the expense to the litigants would be probably a fraction of what it is today under the present law. A case in court could be concluded in much less time than now, since prosecution would be simple, so that years would be saved and the court freed for other matters. While this might not be much of an advantage to the large corporation, it will without question be a boon to the "little fellow" with his limited resources.

In an infringement suit, there is invariably the preparation of briefs

which entails much research, both legal and technical. Briefs are ordinarily of considerable volume and, in most cases, reply briefs are filed. But where, as proposed above, the issues in the suit have been drastically reduced, such briefs would not require extensive preparation, would be relatively short, would not necessitate elaborate replies, would require much less legal and technical research, and would be short and concise, thus saving the time of the contestants and of the courts.

In the above proposal there is a provision that a defense to a suit of infringement would be that of prior public use in the United States. Such a provision has been in the law for many years, and all the questions which could arise in a suit have been before the courts many times, so that the principles involved have been defined and settled by law and the courts. In the case of the proposed short-term patent, such a defense would be permitted.

In the process of examining an application for patent, the Patent Office Examiner is ordinarily not in a position to investigate prior uses of an invention. Such uses may be in small communities or in places remote from the Examiner's source of information. A use may be of limited nature and thus escape the Examiner's attention and, even if such a use were widespread, it might not become known to the Examiner. Even if he should become aware of a prior use, he usually does not have the opportunity of obtaining sufficient legal evidence thereof to reject a patent application, as there is no provision in Patent Office practice to enable him to make a personal investigation, except in extraordinary cases. Therefore, we believe that it is only fair to the defendant to give him the opportunity to prove that the patentee was not the first inventor of the subject matter.

It is probable that there would arise very few such prior public uses so that in the end a patent suit would remain a short, simple and inexpensive matter.

The present proposal also includes as a possible defense that of direct anticipation of the invention. It may be that during the prosecution of the patent application, the Examiner had inadvertently overlooked a patent or a publication of the invention. Or, as is more likely, such a description was not available to him at the time he made his searches. In such a situation the defendant should have the right and opportunity of presenting such newly discovered evidence.

Since the number of defenses are substantially limited by this proposal to practically only prior public uses and prior publications, we believe that considerably fewer suits would be filed. An infringer, knowing that he had little if any defense, would naturally seek to

obtain rights to the patent, if such rights were obtainable or, if not, he would decide that it was not worthwhile continuing the infringing.

It is well to consider whether the present proposal would involve a question of Constitutionality. One feature of the proposal is a term of nine years for the patent. The present law provides for a term of 17 years and this is fully within the provision of Article 1, Section 8, which gives the Congress the right to grant a patent by "securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

Since a 17-year grant is within the Constitution, there can be no question but that a nine-year grant is also.

Another feature of the present proposal is that the defenses to a suit on such a patent are considerably more restricted than defenses to a suit on the present 17-year patent. In the law Title 35, Sections 102 and 103, the Congress has set forth a number of conditions and requirements for obtaining a patent; these are well within the powers delegated by the Constitution. Other conditions have been made from time to time by decisions of the district courts and the courts of appeals in a great many cases involving specific patents. In such decisions various criteria have been set up for determining the validity and scope of patents in accordance with the Constitutional provision.

The Supreme Court has also announced principles applicable to the interpretation of patents. At one time it formulated the theory of "flash of genius" as a basis for patentability. Later it renounced this theory to a more realistic position not requiring an exercise of "genius," which is almost incapable of precise definition. All this shows that changes in the conditions for patentability of inventions are well within the powers of the Congress. The present proposal involves a liberalization in the conditions which serves greatly to strengthen the patent and to increase the value thereof for the shortened term. It is believed that such liberalization is perfectly permissible under the rulings of the Supreme Court.

The shortened-term patent should not be compared with the "Gebrauchsmuster" which has been in vogue in Germany for a considerable number of years. It is commonly called a "petty patent" and it is in effect a utility model patent for the design of physical objects which may be compared to our design patents. The term is for three or six years at the option of the applicant.

The Gebrauchsmuster is granted for devices having a novel form, shape or arrangement of elements, and novelty alone is sufficient for patentability. Its principal use has been for protecting simple devices which might be called "gadgets." It cannot be obtained for such

patentable inventions as chemical and physical processes, electronic devices, chemical compounds or compositions and others. The shortened-term patent is applicable to all patentable inventions in all fields and has no relation to mere designs.

We do not recommend that most patents should be taken out for the shortened term and, in fact, we believe that for a great many inventions the 17-year patent term should be utilized, particularly where the inventions require considerable time for development, publicization, and commercialization. The shortened-term patent would be most useful for inventions which are of topical interest, and inventions which are of relatively simple character, not requiring long or expensive development, and which can be readily copied by a competitor once the invention is on the market.

In this era of rapid technical advances a shortened-term patent can be a potent factor in stimulating inventors to further efforts in their work. They would realize that the protection they would receive assures them of strong patents with some assurance of adequate return, even though for a shorter period than the present law allows.

Finally, the public would obtain the free use of the invention in a much shorter time.

# The CCPA: Evolution of an Activist Court

STANLEY H. LIEBERSTEIN*

SUMMARY

THIS IS AN ARTICLE ABOUT the United States Court of Customs and Patent Appeals, how it came to be, and some of the things it has done. It tells of the way in which the court achieved recognition. It briefly describes the historical development of judicial activism, and then it describes the activist role played by the court particularly in the growth of our patent laws. Finally, it describes the outlook for the court's future including the Recommendations of the President's Commission on the Patent System and the role that the court can best serve in the future.

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## The Birth of the Court

> The White Rabbit put on his spectacles. "Where shall I begin, please your Majesty?" he asked.
>
> "Begin at the beginning," the King said, very gravely, "and go on till you come to the end: then stop."
>
> Lewis Carroll, *Alice's Adventures in Wonderland*

On February 26, 1929, the gentlemen of the U.S. Senate were discussing a bill to commemorate battlefields in the vicinity of Richmond, Virginia, when Senator Norris of Nebraska interrupted. The floor was yielded to him for the purpose of presenting a conference report on H. R. 6687 entitled "An act to change the title of the United States Court of Customs Appeals," and for other purposes. After the conference report was read Senator Robinson of Arkansas asked: "What will be the result if the conference report shall be agreed to . . .?" to which Senator Norris replied: "The bill proposes to give to the United States Court of Customs Appeals some jurisdiction in patent appeals as well as in customs cases. It also proposes to change the title of the Court of Customs Appeals. It is not thought they have enough to do and should this legislation be enacted, it will give them a little more business and will, to that extent, relieve the other courts."

The report was agreed to that day by the Senate and on the next day by the House of Representatives. It was signed into law by President Hoover on March 2, 1929.

Although the patent side of the court was thus created, its origin as a functioning, five-judge court of appeals can be traced to 1910. Indeed, a bill to create an appellate court in customs matters was first introduced in 1906 by Representative Needham of California. It is not without interest to observe why a specialized court of appeals—specialized in customs—was created. Prior to the Tariff Act of 1890, an importer who disagreed with the customs collector first paid the duty and then sued the collector in the district court for a refund. The Customs Act of 1890 set up a board of appraisers to make final decisions. There was one loophole. Decisions of the board of appraisers could be taken to the district court both on the record and on further evidence. Lawyers would circumvent the board by introducing no evidence and try their case de novo before the district court. In 1908 Congress closed that loophole by requiring the appeal to be heard only *on the record* before the appraisers.

Hence, when two years later the Court of Customs Appeals was established to alleviate the district courts before whom were scores of

custom appeals, the court was required to hear its cases on the record below. That requirement has stuck ever since.

The customs court acted quickly and set up guiding principles by means of which vast numbers of cases were resolved. By the late 1920's their dockets were low. In contrast, the district court in Washington faced an ever increasing workload of patent cases. By way of example, once jurisdiction for patent and trademark matters was transferred to the newly created CCPA, in 1929, their docket immediately trebled.

## Constitutional Status

> For I agree that "there is no liberty if the power of judging be not separated from the legislative and executive powers."
>
> Alexander Hamilton
> *The Federalist Papers,* No. 78

Benny Lurk stood convicted of armed robbery. He had been tried before Judge Joseph R. Jackson, a retired judge of the CCPA, sitting by designation on the United States Court for the District of Columbia. He appealed "in forma pauperis" asserting that he had been denied due process of law. He argued that Judge Jackson was a legislative judge, a member of a court which served as an arm of the legislature, not one that was independent as required of a court established under Article III of the Constitution.[1]

Benny Lurk's argument was no frivolous pipe-dream. It had the weight of more than a quarter-century of precedent behind it. For the Supreme Court had consistently held the CCPA, along with the U.S. Court of Claims, to be administrative courts.[2]

In deciding that the CCPA was a Constitutional court,[3] the Supreme Court first inquired into the nature of the judges and found that their office qualified under Article III. The tenure of office is for life "during good behavior" and salary is not subject to diminution,

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[1] Perhaps the most eloquent expression of the need for an independent judiciary is found in No. 78 of the *Federalist Papers* by Alexander Hamilton. In that paper and in No. 79, Mr. Hamilton describes two criteria for judicial independence: permanency in office and a salary that cannot be reduced. Later, in paper No. 80 he speaks of the "controversies" that an independent court should determine.

[2] Ex parte Bakelite, 279 U.S. 438 (1929). Williams v. United States, 289 U.S. 553 (1933).

[3] Lurk v. United States was a companion case to Glidden v. Zdanok, *et al.,* 370 U.S. 530 (1962)—Glidden involved a decision by Judge J. Warren Madden of the Court of Claims who had made a decision while sitting by designation on the Southern District Court of New York. The Glidden Company challenged the Constitutionality of Judge Madden's decision permitting a group of employees to recover damages for breach of a collective bargaining agreement.

although the judges had once voluntarily accepted a reduction in salary in the early 1930's.

The Supreme Court had to work a bit harder when it came to determining whether CCPA decisions were of a "judicial character," i.e. final and reviewable in the manner of a federal court. For it had previously held that decisions of the CCPA were administrative acts. In the *Postum* case[4] it denied certiorari to review a trademark decision, stating flatly that the decision was "merely an instruction to the Commissioner of Patents by a court which is made part of the machinery of the Patent Office for administrative purposes."

The decision in *Postum* was by the Court of Appeals for the District of Columbia which in 1927 exercised the jurisdiction transferred to the CCPA in 1929. The statutory scheme of appeal in *Postum's* time provided for a cumulative remedy, i.e. by direct appeal and by an equity proceeding against the Patent Office. After *Postum* was decided, Congress made the remedies alternative and in 1929 transferred that amended jurisdiction to the CCPA. That scheme of alternative remedies, i.e. by appeal to the CCPA or by trial de novo in the district court has remained unchanged since. And it was that alternative proviso which in the eyes of the Supreme Court, made the decisions of the CCPA final and binding judicial judgments.

Lastly, the Supreme Court inquired into the CCPA's jurisdiction to review Tariff Commission findings, for an Article III court must decide "cases and controversies." Questioning the validity of the jurisdiction in tariff matters and noticing that, in fact, during the previous year the CCPA had heard no appeals from the Tariff Commission, the court concluded that the business of the CCPA was composed of cases and controversies. The CCPA, it said, was an Article III court.

One question was left open. In a footnote of the *Lurk* decision the Supreme Court stated it was not then holding that CCPA decisions were reviewable by certiorari. That was to be decided a few years later in *Brenner* v. *Manson*.[5] In that case the Supreme Court noted and applied 28 U.S.C. 1256, enacted in 1948, which states:

> Cases in the Court of Customs and Patent Appeals may be reviewed by the Supreme Court by writ of certiorari.

The CCPA had come of age—it was an Article III court whose decisions and judicial standing were every bit the equal of any other federal court of appeals.

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[4] Postum Cereal Co. v. California Fig Nut Co., 272 U.S. 693 (1927).
[5] 383 U.S. 519, 148 *USPQ* 689 (1966).

## The Meaning of Judicial Activism

> I think that the Judges themselves have failed adequately to recognize their duty of weighing considerations of social advantage. The duty is inevitable, and the result of the often proclaimed judicial aversion to deal with such considerations is simply the very ground and foundation of judgments inarticulate, and often unconscious, as I have said. . . . I cannot but believe that if the training of lawyers led them habitually to consider more definitely and explicitly the social advantage on which the rule they lay down must be justified, they sometimes would hesitate where now they are confident, and see that really they were taking sides upon debatable and often burning questions.
>
> Oliver Wendell Holmes
> *The Path of the Law*[6]

Curiously, two men on the Supreme Court who stood together against a majority that refused to accept Congress' social legislation in cases as famous as the *Child Labor Act* and the *Yellow-Dog Contract* cases, formed the basis for the current conflict between judicial restraint and judicial activism. In those legendary dissents of Holmes was conceived the notion that the judiciary had not the right to invade the province of the legislature. It had not the right to set aside laws Congress deemed socially necessary merely because the court found them repugnant to its own rulings of the past. Dissenting at his side was Brandeis, his junior, arguing with equal vigor that the judiciary was morally bound as well as legally enjoined to inquire into the validity of Congress' conclusions. Was the law socially desirable—economically necessary, Brandeis would ask. Where Holmes would urge the judiciary to keep hands off, Brandeis would have it invade up to its elbows. Where Holmes would uphold a law because it was within the discretion of Congress to enact it, Brandeis would uphold that law only because it stood up to an exacting measurement of its economic necessity.

The debate over the function of the judiciary and its relation to Congress and society when interpreting the law did not stop at the footsteps of the Supreme Court. Instead it spilled over every federal Bench in our country.

That same debate has vexed the CCPA in its interpretation of the patent laws as much as any other court of appeals. Recently, in *Prater* v. *Wei*[7] the court faced the problem squarely. Congress had said nothing specifically about the patentability of computer programs, but it did set out the classes of patentable subject matter. Was a computer

[6] *Harvard Law Review,* Vol. 10 (1897), p. 457.
[7] 159 *USPQ* 583 (Nov. 20, 1968).

program, the software that forms the heart of any computer decision, a "process" within the meaning of 35 U.S.C. 101?

Past rulings of the CCPA, as well as of the Supreme Court, seemed to indicate that a process was a physical thing, i.e. it involved the displacement of tangible objects. Computer software is itself a series of instructions, or intangible steps, to be performed in a physical manner by a machine. Striding deeply into the history of the patent law, the court decided that "programs" could be patentable processes. It was Judge Smith's last opinion on behalf of the court, made public the day of his death.

The topic of patents for computer programs has been the subject of many law review articles. The legal profession has devoted seminars to that topic exclusively. The Patent Office has prepared policy statements on it. The court could have kept hands off, it could have said it was a matter for the legislature. Instead it rolled both sleeves up to decide, as best it could, a question it knew was socially burning.

## The Role of Activism:

> There is of course every reason why rules of law should be as regular and as definite as possible. But the amount and kind of antecedent assurance which is actually attainable is a matter of fact, not of form. It is large wherever social conditions are pretty uniform, and when industry, commerce, transportation, etc., move in the channels of old customs. It is much less wherever invention is active and when new devices in business and communication bring about new forms of human relationship.
>
> John Dewey
> *Logical Method and Law*[8]

### *"Invention"*

Generations of patent lawyers grew up knowing that one cannot get a patent for substituting a clay doorknob for one made of wood—that was not "invention." Invention, it was agreed, was not the mere exercise of the skill of the calling—not the expected effort of a mechanic who should know his trade. But while most everyone agreed as to what was clearly not a patentable invention, a battle raged over deciding by what criterion an inventor shall be granted a patent. Some agreed that if a new result is achieved it is a patentable invention. Some said the test is whether a problem of long standing in the art is

[8] *Cornell Law Quarterly*, Vol. 10 (1924), p. 17.

solved, or a long felt need is realized. Others maintained that commercial success was the only real proof of the pudding. Many jurists tried to combine the above criteria and in time formulated additional rules: the presence of a new element in a combination, for example. The woods became full of rabbits and one could find a particular discovery to be a patentable invention or not, almost as the mood struck him. That uncertainty was not bad per se—so long as the primary purpose of the patent system, that of progressing the state of the art or of adding fuel to the fire of genius, was being accomplished.

The system, however, began to show wear from abuse and strain from vigorous criticism around the time the CCPA was born. From 1928 to 1937 the Supreme Court held 17 patents invalid and two valid. In 1939 the T.N.E.C. hearings[9] produced a storm of controversy challenging the basic worth to society of the patent grant. Many patent lawyers wrote articles calling for an overhaul of the patent system. In one such article published in 1942, W. Houston Kenyon, Jr.[10] spoke of "The storm now centering about the patent system" and suggested a complete revamping. Mr. Kenyon said "The cause of the trouble is to be found in the fact that our existing patent system was designed for the protection of brilliant and basic innovations and is very badly adapted to adjust the rights of inventor and public in respect to minor routine improvements."[11] Thurman Arnold bitterly attacked patents as an albatross about the neck of progress.[12]

Judge Learned Hand suggested that "Perhaps the [patent] system is outworn."[13] Judge Jerome Frank wrote an essay on the patent system in the form of a concurring opinion in the *Picard* v. *United Aircraft Corporation* case[14] which had the tone of a man observing a fallen sparrow struggling for its life. For in *Picard,* Judge Frank had intuitively decided that the patent to an inventor named Schenk was valid because "the man in the street (or in the subway) would, I think, believe, as did the trial judge, that Schenk's patent embodies invention. . . . For no one can doubt that Schenk substantially advanced the art." Nonetheless, Judge Frank concurred in holding the patent invalid ostensibly because "my colleagues are far better versed than I in passing on patents." Judge Frank was impressed with his

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[9] Hamilton, *Patents and Free Enterprise,* T.N.E.C. Monograph No. 31.

[10] *JPOS,* Vol. 24 (1942), p. 458.

[11] *Id.* at p. 470.

[12] *JPOS,* Vol. 24 (1942), p. 531.

[13] Dewey & Almy Chemical Co. v. Mimex Co., 124 F. (2d) 986, 990 (C.C.A. 2, 1941).

[14] 128 F. (2d) 632, 53 *USPQ* 563 (1942); later published as an article, *JPOS,* Vol. 22 (1942), p. 808.

colleague, Judge Learned Hand, who authored the majority opinion. Judge Hand had applied a negative test, namely, that nothing is an invention which is the product of "the slow but inevitable progress . . . through trial and error" and of "the exercise of persistent and intelligent search for improvement." The reasoning, of course, followed hard on the heels of *Cuno Corp.* v. *Automatic Services Corp.*[15]

The point to be made is that the patent system had failed miserably in *Picard.* One of the great jurists of our time had personally concluded that the patentee's idea embodied an "invention" and that no one could doubt its contribution to the progress of the art. Yet that jurist said "I am reluctantly constrained to agree that the patent was invalid for want of invention." The trouble was the absence of a yardstick for gauging the validity of a patent. Hence, all Judge Frank, or any jurist not experienced in the shop-talk by which patent men measured validity, could do was throw his hands up and cry that the patent system needs reappraisal. No clearer eulogy could have been written. The patent system was threatening to break down.

The year 1952 saw the first major patent revision since 1836. Among the conditions for patentability appeared a new section, codifying for the first time the requirement in *Hotchkiss* v. *Greenwood*[16] that there be more than mere novelty to achieve patentability. The statutory yardstick introduced was not entirely new, it had been used by some judges before. It asked that the applicant for patent have something which was not obvious to one of ordinary skill in the art at the time the invention was made. A separate sentence in the new Section 103 of the 1952 Act also stipulated that patentability shall not be negated by the manner in which the invention was made—obviously directed at *Cuno.*

Addressing itself to that vague concept called invention, the CCPA began to generate a philosophical discussion. The Constitutionalists took the view that a patent should be granted only for a major contribution to the art. Their reasoning is that Article 1, Section 8 of the Constitution provides for a patent system only to advance the state of the art. Patents for improvements or minor variations on otherwise known technology serve only, in antitrust jargon, as a "barrier to entry." The point is that if Polaroid, for example, can get a patent for the basic invention and then for every minor improvement, its patent position on those improvements can tie up the market long after the basic patent expires. The patentee can form so solid a position in the

[15] 314 U.S. 85 (1941).
[16] 52 U.S. (11 How.) 248, 13 L. Ed. 682 (1850).

marketplace that no newcomer could afford to enter. Thus the original grant of a right to exclude others from a market for 17 years could conceivably be parlayed into a much longer period, perhaps indefinitely. Hence, the grant of a patent for anything other than a major contribution to the art defeats the Constitutional purpose of advancing the state of the art.

Another branch of the court and Patent Bar took a different view. While patents should not be granted for trivia, it would be a mistake, they contended, to substitute or superimpose a so-called Constitutional requirement for "advancement" for the statutory requirement of non-obviousness. Congress has the ultimate responsibility for applying Article 1, Section 8 and it did not see fit to impose any statutory condition for "advancement." Congress has its ears closer to the tempo of our industrial society and has said, through its legislation, that the grant of patents which meet the conditions set forth in 35 U.S.C. will, in the long run, best "advance" the art.

One interesting argument runs as follows: Technology breeds other technology in pyramid fashion. One improvement or variation gives birth to another, and in time a given field of endeavor is provided with a state of knowledge that is saturated. It is then that a major breakthrough occurs. It is essential to encourage not only the making of improvements, but their disclosure. That is not to say that every variation should be patentable. The point, however, is that the patent system should be geared to encourage innovation, even of a modest sort. Granting patents for improvements accomplishes just that since it incites further growth in that field.

Jumping headfirst into this sea of waddling "invention" the CCPA was the first court to take up the banner of "obviousness" and apply it uniformly. The courts' opinions were frequently looked to for guidance by other courts. Unfortunately, because the court was still regarded as an extension of the administrative system of patents, it did not then compel the same following as other courts of appeal. But its opinions tolled heavily on the Examiners in the Patent Office and the members of the Patent Bar. Strongly influenced, too, were the D.C. District Court and Court of Appeals. The process of change was agonizingly slow, but the consistence and persistence of the CCPA in applying the language of Section 103 began to take hold in the opinions of other courts of appeal.

The process of change was not quick enough for the Eighth Circuit however. In *Graham* v. *Deere* it held that the test was whether a new

result was achieved and found Graham's patent lacking.[17] The Fifth Circuit tested the validity of the very same patent by still another yardstick, i.e. whether the old result could now be produced in a cheaper and more advantageous way and held the patent valid.[18] The Supreme Court rejected both and in doing so applied the statutory standard of Section 103. The reasoning of the Supreme Court showed the influence of earlier decisions of the CCPA.[19]

Much of the Supreme Court's reasoning with respect to Section 103 can be traced to a brief filed *amici curiae* by the Illinois State Bar Association. The parties to the dispute, and other *amici,* argued over whether Section 103 raised or lowered the standard of invention. George Frost and James Wetzel, writing the Illinois *amici* brief, observed first that Section 103 was rooted in the "skill of the art" test first enunciated in *Hotchkiss* and second that the standard never really changed. It was always a strict standard. The other criteria that had grown up since *Hotchkiss,* e.g. commercial success, could be used but only as subtests. The prime test was 103. That was the point that the CCPA had been hammering away at since Section 103 was first enacted.

The Supreme Court had an opportunity in the *John Deere* cases to set aside the test of obviousness in Section 103 as unconstitutional, and to apply a Constitutional standard of advancement or to establish a new standard (as some lawyers and judges thought it did in *Cuno*). It is a tribute to the early labors of the CCPA that it chose to follow Section 103 straight down the line.[20] It called the artificial criteria of the Fifth and Eighth Circuits "sub-tests" of secondary value in close situations.

The sine-qua-non of any patent system is the criteria which determine whether a patent application shall issue or not. Presumably the same criteria will be applied in the determination of the validity of a patent. The influence of the CCPA on the development of those criteria is profound. Aside from its contribution to the "obviousness" standard of patentability it has played an active role in just about every area of patent law.

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[17] 333 F. (2d) 529, 142 *USPQ* 243 (1964).

[18] 219 F. (2d) 511, 104 *USPQ* 261 (1955) *cert. denied,* 350 U.S. 826.

[19] Graham *et al* v. John Deere Company of Kansas City *et al.* Calmar, Inc. v. Cook Chemical Company; Colgate-Palmolive Company v. Same 383 U.S. 1, 148 *USPQ* 459 (1966).

[20] For an analysis of the Supreme Court's opinion see Stanley H. Lieberstein, "The John Deere Cases," *Patent Law Development,* Vol. 7 (1967), p. 61.

*"Utility"*

In the field of utility, for example, the CCPA has spent years in the trough of a turbulent sea. Refusing to be a bystander, it worked diligently in an effort to formulate a workable rule. And its decisions in this area often divided the court and, at times, caused a sharp dissension among its members.

At the core of the matter reside three central questions. First, what is meant by "utility," second, what is required of the applicant for patent by way of disclosure of how to use an invention, and third, what is or should be the responsibility of the Patent Office in this regard.

The utility problem seems to be indigenous to chemical patents for it is there that something can be created, the usefulness of which cannot be tested by ordinary experience. Indeed, there was no problem prior to the growth of the chemical industry and the phenomenal increase in chemical patent applications beginning around the time of the second World War. In 1817, when Justice Story first defined the utility requirement,[21] chemical discoveries were rare. Most men could see for themselves whether a mechanical invention was frivolous or injurious to society or whether it would lead to mischief or contravene the morals of society, and that was the definition set by Justice Story. And that definition stood for virtually one and one-half centuries. It served the needs of its time well, but the rising flood of chemical patent applications describing mysterious substances whose worth was far from apparent, aroused skepticism. In time it also led to a complete re-evaluation of the meaning of utility.

The first inroad in the changing concept of utility came with the CCPA's decision in *In re Bremner* in 1950.[22] The court affirmed a board decision stating that the application lacked "an assertion of utility and an indication of the use or uses intended." No distinction was then made between a requirement for usefulness and a disclosure of "how to use." It can be seen in retrospect that the court, despite the words of its opinion, was confronted with a "how to use" situation.[23]

*In re Bremner* was only the beginning. One of the most significant cases in the utility area, *In re Nelson*[24] gave the CCPA the opportunity to decide whether a chemical substance that could be used as an intermediate to make other chemical compounds was useful. That

[21] Lowell v. Lewis, 15 *Fed. Cas.* 1018 (No. 8568) (C.C. Mass. 1817).

[22] 182 F. (2d) 216, 86 *USPQ* 74 (1950).

[23] See Note, "Some Special Problems with the Utility Requirement in Chemical Patents," *George Washington Law Review,* Vol. 35 (1967), p. 809.

[24] 280 F. (2d) 172, 126 *USPQ* 242 (1960).

intermediate could produce a member of a class of compounds some of which were known to have practical uses, although no specific use was known for that particular member. The point here is that chemical compounds can be used as research tools with no practical end result in sight. In a split decision the CCPA reversed the Patent Office Board of Appeals and held that the compounds described as useful intermediates in chemical research were useful. However, the debate as to what would satisfy the requirement for utility was far from over.

The Supreme Court had its turn to speak on this matter in *Brenner* v. *Manson*.[25] The CCPA, with one dissent, had earlier ruled in *In re Manson*[26] that a process for making a known product was useful without regard to whether that product had a practical end use. The Supreme Court disagreed, reasoning that until the process could be shown to produce a useful product in a practical sense, the "metes and bounds" of the patent monopoly could not be delineated.

In its first interpretation of *Brenner* v. *Manson,* the CCPA divided sharply, the majority holding that it logically required the reversal of *Nelson.* The court reasoned in *In re Kirk*[27] that if a process had to produce an end product of practical value, as the Supreme Court found in *Manson,* then a chemical compound which served to make other compounds also had to result in a product of practical use. In a companion case, *In re Joly*[28] the court held that a process for making chemical intermediates having no disclosed practical end use did not satisfy the requirement for utility.

It now appears that the fundamental requirement for utility imposed by 35 U.S.C. 101 is not satisfied by anything short of a disclosed practical end use. The CCPA decisions have also helped distinguish between the requirements of 35 U.S.C. 101 and 112. The applicant must not only have a useful end product but a description of how to go about using the invention claimed.

The CCPA has dealt with the responsibility of the Patent Office primarily with respect to drug cases. The central question here was the extent to which the Patent Office should inquire into the efficacy of a chemical substance alleged to have a medical use. *In re Hartop*[29] held that tests on animals could be required to establish a probability of safety. However in *In re Citron*[30] the court required deletion of

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[25] 383 U.S. 519, 148 *USPQ* 689 (1966).
[26] 333 F.(2d) 234, 142 *USPQ* 35 (1964).
[27] 376 F.(2d) 936, 153 *USPQ* 48 (1967).
[28] 376 F.(2d) 906, 153 *USPQ* 45 (1967).
[29] 311 F.(2d) 249, 135 *USPQ* 419 (1962).
[30] 325 F.(2d) 248, 139 *USPQ* 516 (1963).

incredible statements of utility, e.g. a cure for cancer, asserting that the government, in an oblique sense, stood behind the statements made in the patents it issued.

### *"Double Patenting"*

Not all of the decisions of the CCPA have been made in the tense atmosphere surrounding the so-called "utility" and "standard of invention" cases. Many inroads have been made in the law with relative unanimity, at least on the Bench. As an example, take the double patenting problem. That one had vexed the courts for ages. The 1952 Patent Act had provided, or attempted to provide, a possible remedy. The solution suggested by Congress is found in the second paragraph of 35 U.S.C. 253 and reads as follows:

> In like manner any patentee or applicant may disclaim or dedicate to the public the entire term, or any terminal part of the term, of the patent granted or to be granted.[31]

There is no discussion of that provision in the Congressional Record. However, the man who served as advisor to the House subcommittee that had held hearings on and finally approved this legislation, did comment on the purpose of that second paragraph. His name is P. J. Federico and in the annotations to 35 U.S.C. at page 49, he stated that the proponents of that paragraph "contemplated that it might be effective in some instances, in combating a defense of double patenting, to permit the patentee to cut back the term of a later issued patent so as to expire at the same time as the earlier issued patent and thus eliminate any charge of extension of monopoly."

Notwithstanding the above, the second paragraph of 35 U.S.C. 253 remained on the books for 12 years before being applied. Not that patent lawyers failed to assert it on behalf of their clients. It was argued vigorously to no avail. The Supreme Court had said in *Miller* v. *Eagle Mfg. Co.*[32] that two patents claiming substantially the same subject matter cannot both stand. In addition, there was the fear of opening Pandora's box. It was thought that the result might be harassment of the Patent Office by multiple assignees and the cutting of a path around file wrapper estoppel by permitting a second application for the withdrawn subject matter. The above are merely

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[31] July 19, 1952, C. 950, §1, 66 Stat. 809.
[32] 151 U.S. 186 (1894).

some of the considerations that caused such hesitation by the courts in putting Section 253 to full use.[33]

In December of 1963, *In re Robeson*[34] was argued before the CCPA. Robeson had filed two separate applications some nine years earlier. The Patent Office had determined that both were allowable and they were scheduled to be issued on the same day. One of those two cases was pulled out of the issue branch, for interference purposes. Later it was abandoned in favor of the continuation-in-part application then before the court. Robeson's first application had since issued as a patent and was cited by the Patent Office as prior art.

The court had many times before refused to give effect to a terminal disclaimer. In *In re Siu*[35] the court said that the claims were drawn to "mere colorable variations" of the same idea. In *In re Zickendraht*[36] the court said that the terminal disclaimer was not timely filed. In *In re Robeson* the court felt that the time had finally arrived to apply the second paragraph of Section 253. It permitted the use of a terminal disclaimer, but guardedly so. The court warned in its opinion that it recognized the possibility of future abuse and was deciding *Robeson* on its facts. "We are not here confronted by a situation where any abuse of the terminal disclaimer is suggested," said the court, implying that under another set of facts it might act to correct misuse of the terminal disclaimer.

Once having taken the step of permitting a terminal disclaimer to overturn a rejection by the Patent Office on the ground of double patenting, the court similarly decided another case, heard later that term, *In re Kaye*,[37] and handed down both decisions with the unanimous opinions.

### *"Reduction to Practice"*

The court struck new ground in interference proceedings when it decided that a party need not corroborate each and every last detail nor every step in a single reduction to practice of the invention. That case is *Hasselstrom & Henry* v. *McKusick*[38] and in its opinion the court noted that every significant stage had been corroborated separately

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[33] William T. Bullinger, "Double Patenting and the 1952 Act," *IDEA*, Vol. 10, No. 3 (Fall 1966), p. 389.

[34] 331 F. (2d) 610, 141 *USPQ* 485 (1964).

[35] 222 F. (2d) 267, 105 *USPQ* 428 (1955).

[36] 319 F. (2d) 225, 138 *USPQ* 22 (1963).

[37] 332 F. (2d) 817, 141 *USPQ* 829 (1964).

[38] 324 F. (2d) 1013, 139 *USPQ* 511 (1963).

and that a series of tests had been made. In that case and in *Gianladis* v. *Kass*[39] the court strove to introduce a concept of rationality to replace the rigid rules then applicable to the requirement for corroboration.

In *Paivinen* v. *Sands*[40] and *Land and Morse* v. *Regal et al.*[41] the court sought to introduce a more realistic approach to the problem of laboratory testing to prove actual reduction to practice.

*"References"*

*In re Hilmer, Korger, Weyer, and Aumuller,*[42] resolved a point of some confusion. The problem was whether a U.S. patent was effective as prior art from its convention date or from its U.S. filing date. That problem was complicated by the side-by-side existence of two statutes, 35 U.S.C 102 (e) and 35. U.S.C. 119. The board had held that the two statutes read together required that a patent be entitled to its foreign filing date in all respects, including its status as prior art. The District Court for the District of Columbia in *Eli Lilly & Co.* v. *Brenner*[43] held that the convention date served as the effective date of the U.S. patent as a reference. The CCPA disagreed. In a divided opinion the court reasoned that 35 U.S.C. 119 does not relate to 35 U.S.C. 102 (e) in concept or purpose. After elaborately examining the history of 35 U.S.C. 119, the court found that it was intended as a means for creating reciprocal rights between U.S. and foreign citizens for the purpose of permitting a "home" filing up to a year before actual filing in a convention country. Thus the home filing would preclude, for one year, the possibility of patent refusal due to an intervening publication.

Section 102 (e), said the court, finds its birthright in a 1926 decision of the Supreme Court, *Alexander Milburn Co.* v. *Davis-Bournonville Co.*[44] In *Milburn* the Supreme Court said that a copending, but earlier filed reference showed that the applicant for patent was not the first inventor. (The CCPA extended that decision to mean that copending applications were prior art references as of their U.S. filing date in *In re Harry.*[45] The difference in origin of the two sections

[39] 324 F. (2d) 322, 139 *USPQ* 300 (1963).
[40] 339 F. (2d) 217, 144 *USPQ* 1 (1964).
[41] 342 F. (2d) 92, 144 *USPQ* 661 (1965).
[42] 359 F. (2d) 859, 149 *USPQ* 481 (1966).
[43] 248 F. Supp. 402, 147 *USPQ* 442 (1965).
[44] 270 U.S. 390 (1926).
[45] 333 F. (2d) 920, 142 *USPQ* 164 (1964).

suggests their difference in effect. Section 102 (e) refers to patents on applications filed in the U.S. Patent Office. The CCPA concluded that Section 119 does not make a U.S. patent a reference as of a foreign priority date. The court held that the U.S. filing date controlled the effectiveness of a patent as a reference.

A brief dissent took issue with the majority on the ground that it was not heeding the plain meaning of the words of 35 U.S.C. 119. "It seems to me," wrote the dissent, "the majority legislates into the statute words of limitation which Congress has not placed there."

### *"Trademarks and Customs Law"*

The courts' efforts have not been limited to the patent field. In a trademark case, *Alfred Dunhill of London, Inc.* v. *Dunhill Tailored Clothes, Inc.*[46] the court introduced the question of concurrent registration as an ancillary matter. The courts' injection of that issue surprised counsel for both parties since it was not set forth in the reasons of appeal. It represents but one example of the courts' concern for the public interest.

The one area where the courts' activism has been dampened is customs law. It must be noted, however, that unlike patent and trademark cases, customs cases come to the CCPA after full trial before a lower federal customs court, and in certain instances, after one appeal has already been taken. The evidence in the record is the result of testimony offered under both direct and cross-examination. Expert witnesses have taken the stand in open court to testify subject to cross-examination. Thus the issues, points of law, and the facts have been thrashed out and honed to a generally finer point. The result is an appeal framed more deliberately than in most patent and trademark cases that reach the court, particularly the ex parte cases.

The court has not been silent in the customs field, however. In *S. I. Stern Co.* v. U.S.,[47] it held that a customs broker could not appear "pro se" as the true party in interest when he is not the real beneficial owner of the goods involved. In *C. O. Mason, Inc.* v. *U.S.*,[48] it was decided that duties collected under a law that is later held to be unconstitutional must be refunded. The government argued that the administrative problems created by the refunding requirement would

[46] 293 F. (2d) 685, 130 *USPQ* 412 (1961).

[47] 51 CCPA 15, 331 F. (2d) 310 (1963).

[48] 51 CCPA 107 (1963).

be nightmarish and appealed to the Supreme Court. However, certiorari was denied at 379 U.S. 999.

The instances of judicial activism on the part of the court are too numerous to recite. The above examples merely illustrate the bold hand with which the CCPA has helped shape a figureless mass of words called the law.

## The Price of Activism

> Either the applicant or the Patent Office may appeal from a decision of the Court of Customs and Patent Appeals to the United States Court of Appeals for the District of Columbia Circuit, and from a decision of the latter court either may petition the Supreme Court for a writ of certiorari.
>
> Recommendation XIV
> *Report of the President's Commission on the Patent System (Washington, D. C.: G.P.O. 1966).*

Hell hath no fury like the Patent Office scorned. And the Patent Office employees who comprised the staff of the President's Commission on the Patent System tasted revenge for the many decisions they did not like. The conflict between the CCPA and the D.C. Court of Appeals, says the explanatory text of the Commission's Report, leads to uncertainty. The Patent Office must then choose between the courts and that creates inconsistency. Everything would be much simpler, argues the Patent Office, if CCPA decisions were reviewable by the D.C. Court of Appeals.

It was not always thus. At an earlier time, in the 30's and 40's the Patent Office considered itself bound by the decisions of the CCPA. In 1939, First Assistant Commissioner Frazer, in *R. H. Macy & Co., Inc.* v. *Marshall Field & Co.*,[49] wrote of the CCPA:

> The tribunals of the Patent Office are, of course, controlled by the rulings of that court. . . .

In 1941, the Commissioner, in a trademark case, *The Coca-Cola Company* v. *Jacob Ries Bottling Works, Inc.*[50] referred to a decision of the Fourth Circuit Court of Appeals and said:

> The views there expressed are in some respects contrary to those entertained by the Court of Customs and Patent Appeals, and support the conclusions reached by the examiner in the instant

[49] (Comm. Pats) 42 *USPQ* 538, 539 (1939).
[50] (Comm. Pats) 50 *USPQ* 639, 640 (1941).

> proceeding. However, the Court of Customs and Patent Appeals has appellate jurisdiction over the Patent Office; and its rulings, to the exclusion of those of the circuit courts of appeals, are binding upon the Patent Office tribunals.

Indeed, in case after case the Patent Office held that it was bound by the decisions of the CCPA.[51] That is, before *Ex parte Joly et al.*,[52] *Joly*, as noted earlier, was one of the recent "utility" cases and presented a "hot" issue to the board. The Board of Appeals said it was faced with a conflict between the CCPA and the D.C. Court of Appeals, and therefore, would be guided by its "own best judgment." Ironically, choosing a path considered contrary to the CCPA, the board was ultimately affirmed by the CCPA. Such activism on the part of the board could be healthy, provided it is responsible.

Clearly, if what the Commission had in mind in Recommendation XIV was truly to establish uniformity in the Patent Office, the Commission could have chosen a recommendation that followed the long line of decisions holding that the Patent Office was governed by the CCPA.[53]

## THE OUTLOOK

> Judges like Brandeis, Cardozo, Hughes, Murphy, Stone and Rutledge brought to the bench a libertarian philosophy and used it to shape the law to the needs of an oncoming generation. In that sense they were "activists," criticized by many. But history will honor them for their creative work. They knew that all life is change and that law must be constantly renewed if the pressures of society are not to build up to violence and revolt.
>
> Douglas, *An Almanac of Liberty*, p. 104.

On September 20, 1967 Chief Justice Earl Warren spoke before an audience attending the dedication ceremonies of the new building housing both the United States Court of Claims and the Court of Customs and Patent Appeals. Justice Warren opened his talk with a story of three men working on the construction of the building, each one being approached by a stranger. When the stranger approached the first workman, he asked: "What are you doing?" and the workman

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[51] See, for example, Smith v. Klemperer, 103 *USPQ* 275, 279; Ex parte Graham, 49 *USPQ* 34 (1940); Ex parte Peterson, *et al.*, 60 *USPQ* 500, 502 (1943); Ex parte Zworykin, 63 *USPQ* 189, 190 (1943); Ex parte Mohr, 77 *USPQ* 510, 512 (1948); Ex parte Hastings, 88 *USPQ* 431, 432 (1950).

[52] Ex parte Joly was decided by the Board of Appeals in January, 1964. It was affirmed by the CCPA in 1967, see note 28.

[53] *Id.* note 51.

replied: "I am earning a living." When the stranger approached the second and inquired as to what he was doing, the reply was "I am mixing some mortar." When the third workman was approached and asked the same question, he replied: "I am constructing an edifice." It is with the pride of constructing an edifice that the CCPA has approached its task of contributing to the growth of our patent system. At this time, with the pending legislation reviewing the patent system as a result of the President's Recommendations, it is appropriate to discuss the future of the court and its place in the history of patents.

On April 11, 1967, at a meeting of The New York Patent Law Association at the Hotel Biltmore in New York, Judge James A. Coolahan of the District of New Jersey, suggested that the jurisdiction of U.S. Court of Customs and Patent Appeals be enlarged so that it may serve as an advisory expert court to which other courts could refer technical cases for partial determination. What he was talking about specifically, was the determination of validity in a patent infringement suit. Judge Coolahan asserted that the technical aspects were better handled by a specialized court and that the case could be returned to the Federal District Court for resolution of all other issues, once the technical issues, including validity, have been determined.

Judge Smith spoke before The New York Patent Law Association on April 3, 1968. He did not, however, envision any enlargement of the court's jurisdiction but suggested that the present function of the CCPA was its proper function, namely to review the decisions of the Commissioner of Patents as an independent appellate court.

It cannot be denied that the Patent Office has a problem if it is faced with a diversion of opinion between the CCPA and the Court of Appeals for the District of Columbia, and no clear mandate as to which court it must follow. However, that problem stems from the ancient and historical procedure whereby an applicant for a patent can have his case reviewed on the record by the CCPA or inject new evidence in a trial before the district court. It is generally recognized that the trial before the district court is a quasi appeal. Greater consistency could solve the Patent Office's dilemma, but it would be inexcusable to reverse history and increase the workload of the district courts by adding to them increasing jurisdiction in patent matters.

It will be recalled that the very purpose of the CCPA was to relieve the workload of other federal courts in patent matters. A simple solution to the diversion of opinions problem would be to provide the CCPA with commissioners much in the same manner as the United States Court of Claims. Those familiar with the Court of Claims know that the Commissioner hears and makes findings in patent matters

which are then presented to the Bench. Similarly, if an applicant wanted a review of a board decision which was not limited to the record, he could apply to the CCPA to have his case first heard by one of the commissioners that would be appointed. The Commissioner would entertain and make findings based on the new evidence presented. He could be empowered to make decisions himself similar to the present authority of the district court to make a decision. Alternatively, the Commissioner's authority could be limited to findings of the fact based on the new evidence presented, which would then be transmitted to the full court.

The result would follow in a natural manner the historical creation of the CCPA and the flow of patent matters away from the district court to the CCPA. The CCPA would not, however, be empowered to hear patent infringement cases. Patent infringement matters would be handled in the very same way they are handled today. The only change made would be with respect to review of Patent Office decisions. The district court would no longer review Patent Office decisions in quasi trials. Not only would it ease the workload of the district court, but it would increase the consistency of review that the Patent Office has asserted it needs in order to establish uniform policy.

The evolution of the CCPA is not unlike that of a human being that has only in the last decade reached full maturity. Its activism has contributed dissension at times, but it has also contributed a cohesiveness to the patent profession. It has served to inject some elements of philosophy into the patent law. And not inconsequentially, its mere presence and growth as a recognized, independent Constitutional court has served to add status to the Patent Bar which in the past grew up more as a trade than as a profession and served as Esau to the general lawyer's Jacob. In the summing up of time, when posterity writes of the patent law, it is the conviction of this writer, that it will be said: "The advent of the CCPA marked the beginning of a system of patent jurisprudence."

## EDUCATIONAL ACTIVITIES

*We are including this paper in the Educational Activities Section of* IDEA *because it provides our readers with a good legal backdrop for a major empirical study on patent licensing limitations in which the Institute is engaged. The paper presents an up-to-date legal survey of patent-antitrust problems.*

# Patents and Antitrust: Guides and Caveats

GERALD KADISH*

### BACKGROUND

DURING THE LATE 1930's and early 1940's the Justice Department, spurred by the findings of the T.N.E.C. and by Thurman Arnold's vigorous leadership in the Antitrust Division, launched a major attack on patent practices. This attack ground to a virtual halt beginning in the middle 1940's, and, with some few exceptions,[1] the Department brought few antitrust cases involving patent practices for about 20 years.

When Donald Turner became head of the Antitrust Division he made an effort to change this 20-year history and hired attorneys whose major task would be to investigate patent-antitrust violations. This action has proved successful in reinvigorating the government's

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[1] See, e.g., United States v. Singer Manufacturing Co., 374 U.S. 174 (1963).

prosecution of antitrust violations involving patents and from November 30, 1967 through the end of 1968 the Justice Department filed six antitrust cases involving patent practices.

In this context it was felt that it would be appropriate to attempt to pull together the present state of patent-antitrust law and to give some indications where it might be heading. Many antitrust lawyers who are familiar with all of the intricacies of price-fixing, merger and price discrimination law are relatively unaware of all of the nuances of patent-antitrust law. Similarly, many patent attorneys are not completely aware of all of the antitrust implications and pitfalls of patent activities. It is hoped that this article may help to bridge this gap.

## Acquisition of Patent Rights

Patent rights, i.e., the right to make, use or sell a patented invention may be acquired either by the actual grant of a patent by the Patent Office, by the purchase of a patent from the patentee,[2] or by the acquisition of an exclusive or non-exclusive license to make, use or sell the patented invention. Each of these methods of securing patent rights can lead to serious antitrust problems depending on the size of the company involved and the methods used.

Patents may be granted to "whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof . . ."[3] Standing by itself the accumulation of any number of patents through one's own research efforts has never been held to violate the antitrust laws.[4]

However, the Supreme Court in *Walker Process Equipment, Inc.* v. *Food Machinery & Chemical Corp.*[5] held that if the patentee has obtained its patent as a result of fraudulent statements made to the Patent Office it may be guilty of a violation of Section 2 of the

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[2] Section 100 (d) of the Patent Act, 35 U.S.C. §100 (d) defines a patentee to include "not only the patentee to whom the patent was issued but also the successsors in title to the patentee."

[3] 35 U.S. § 101.

[4] Automatic Radio Manufacturing Co. v. Hazeltine Research Inc., 339 U.S. 827, 834 (1950); Cole v. Hughes Tool Co., 215 F.2d 924, 939 (C.A. 10, 1954); Dollac Corporation v. Margon Corporation, 164 F. Supp. 41, 62 (D.N.J. 1958); United States v. United Shoe Machinery Corp., 110 F. Supp. 295, 342 (D. Mass. 1953), *aff'd*, 347 U.S. 521 (1954).

[5] 382 U.S. 172 (1965).

Sherman Act.[6] But the Court explained that in order to determine whether the patentee has attempted to monopolize or monopolized through the fradulent procurement of a patent

> . . . it would . . . be necessary to appraise the exclusionary power of the illegal patent claim in terms of the relevant market for the product involved. Without a definition of that market there is no way to measure [the patentee's] ability to lessen or destroy competition. . . . There may be effective substitutes for the [patented] device which do not infringe the patent.[7]

Also, the Court made clear that a mere honest mistake would not support a Section 2 charge. ". . . good faith would furnish a complete defense. This includes an honest mistake . . . —so-called 'technical fraud.' "[8] Finally, the Court held that an assignee of the patent who maintains and enforces it with knowledge of the patent's infirmity would similarly be liable to a Section 2 charge.[9]

The rationale of *Walker Process, supra* would also support the proposition that anyone enforcing a patent which he knows to be invalid is violating Section 2 of the Sherman Act, assuming the patented invention constitutes a relevant market; and of course if two companies conspire to enforce a patent which they know to be invalid, a violation of Section 1[10] may be found without inquiry into the question of relevant market.

After the *Walker Process* decision, the government proceeded to file a criminal case based on the theory that efforts to enforce patents which were allegedly known to be invalid violate Sections 1 and 2 of the Sherman Act.[11] The indictment alleged that during the early 1950's Union Camp Corporation established a licensing program under its

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[6] 15 U.S.C. § 2:

> Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be guilty of a misdemeanor.

[7] 382 U.S. 177-8.

[8] 382 U.S. 177.

[9] 382 U.S. 177, n. 5. See also United States v. Singer Manufacturing Co., 374 U.S. 174, 199-200 (Concurring Opinion of Justice White); American Cyanamid Co. v. F.T.C., 363 F.2d 757 (6th Cir., 1966); Charles Pfizer & Co., Inc. v. F.T.C., 401 F.2d 574 (6th Cir., 1968); Diamond International Corp. v. Walterhoefer, 289 F. Supp. 550 (D. Md. 1968).

[10] Section 1 of the Sherman Act, 15 U.S.C. 1, provides:

> Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal . . .

[11] United States v. Union Camp Corp., *et al.*, Crim. Action No. 4558 (E.D. Va. November 30, 1967).

Daniels patent which claimed window bags.[12] In 1954, according to the indictment, Bemis Company, Inc. charged Union with infringement of its Belcher patent which claimed the methods and apparatus for making window bags. Union demonstrated to Bemis its proof that the Belcher patent was invalid and Bemis countered with a threat to cause Union's Daniels patent to be declared invalid. Union then agreed to reduce Bemis' royalties under the Daniels patent to approximately one-half the rate paid by others and Bemis transferred substantially all of its rights under the Belcher patents. Thereafter Union broadened its licenses under the Daniels patent to include the Belcher patent, threatened to bring an infringement suit based on the Belcher patent and actually brought an infringement suit under this patent. The indictment charged Union, its president and patent counsel with an attempt to monopolize window bags and also charged that Union, the two individual defendants and Bemis had conspired in violation of Section 1 of the Sherman Act.[13]

The acquisition of patent rights from others may raise antitrust problems under Section 7 of the Clayton Act.[14] This statute has been broadly interpreted by the Supreme Court and, indeed, the Court has adopted a virtual per se approach with respect to any significant horizontal acquisition, i.e., the acquisition of the stock or assets of a direct competitor.[15]

Although the Supreme Court has never faced the question of whether a patent is an asset for the purposes of Section 7, there seems little doubt, in view of the broad jurisdictional approach that the Court has taken with respect to the statute,[16] that patents and

[12] Window bags are used to package potatoes.

[13] All of the defendants entered pleas of *nolo contendere.* A companion civil case, United States v. Union Camp Corp., *et al.,* Civ. Action No. 5005 A (E.D. Va. November 4, 1968) is still pending. For a fuller discussion of this problem, see Editorial Note, "Patents, Fraud and the Antitrust Laws," 37 *George Washington Law Review* 168 (1968).

[14] 15 U.S.C. § 18:

> No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital . . . [or] the whole or any part of the assets of another corporation engaged in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or tend to create a monopoly.

[15] United States v. Pabst Brewing Co., 384 U.S. 546 (1966); United States v. Von's Grocery Co., 384 U.S. 270 (1966); United States v. Continental Can Co., 378 U.S. 441 (1964); United States v. Aluminum Co. of America, 377 U.S. 314 (1964); Brown Shoe Co. v. United States, 370 U.S. 294 (1962).

[16] See, e.g., United States v. Penn-Olin Chemical Co., 378 U.S. 158 (1964); United States v. Philadelphia National Bank, 374 U.S. 321 (1963).

exclusive licenses would be considered to be assets for the purposes of Section 7. Lower court decisions support this conclusion. In *United States* v. *Lever Brothers Co.*,[17] Lever Brothers urged that its acquisition of the "all" trademark and various patents from Monsanto did not constitute an acquisition of assets and hence could not be unlawful under Section 7. The District Court summarily disposed of this contention and stated, "It appears clear, however, that a trademark may be a very valuable asset of a company; *patents may be valuable assets of a company* . . . . The Court must necessarily conclude that the contract involved the acquisition of assets by Lever Brothers from Monsanto."[18] (Emphasis added.) Previously, in *United States* v. *Columbia Pictures Corp.*,[19] an exclusive copyright license-distribution agreement was held to be an asset for the purposes of Section 7. The court explained at pages 181-182:

> As used [in Section 7] the words "acquire" and "assets" are not terms of art or technical legal language. In the context of this statute, they are generic, imprecise terms encompassing a broad spectrum of transactions whereby the acquiring person may accomplish the acquisition by means of purchase, assignment, lease, license, or otherwise. The test is pragmatic. . . . Consistent with the broadly-drawn language is the word "assets." It is not a word of art, nor is it given a built-in definition by statute. As used in this statute, and depending upon the factual context, *"assets" may mean anything of value.* (Emphasis added.)

More recently, in 1965, Donald F. Turner, the then Assistant Attorney General in Charge of the Antitrust Division, made clear that the Department of Justice considered patent acquisitions and exclusive licenses to come within the scope of Section 7.[20] Professor Turner stated:

> I assume, and I think it is a completely safe assumption, that both a patent and an exclusive license under a patent are "assets" within the meaning of Section 7. Consequently, to use the words of the statute, it is unlawful for a corporation to acquire a patent or an exclusive license under a patent from another corporation where the effect may be to substantially lessen competition or to tend to create a monopoly.[21]

Professor Turner went on to outline at least one situation in which

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[17] 216 F. Supp. 887 (S.D.N.Y. 1963).

[18] *Id.* at 889.

[19] 189 F. Supp. 153 (S.D.N.Y. 1960).

[20] In November, 1968, the Antitrust Division filed an action challenging the acquisition of an exclusive license under both §§ 1 and 7. United States v. Scott Paper Co., Civ. No. 32049 (E.D. Mich. November 29, 1968).

[21] Turner, "Patents, Antitrust and Innovation," 26 *University of Pittsburgh Law Review,* 151, 155 (1966).

the acquisition of a patent or an exclusive license would raise serious Section 7 problems. "It seems to me," he stated, "that serious Section 7 problems would be raised whenever a company acquired a patent, or an exclusive license under a patent, of such importance that the acquirer may obtain thereby an advantage over his competitors which might be decisive."[22]

For some companies Section 2 of the Sherman Act[23] must be taken into account when considering whether or not to acquire any further patents or exclusive licenses. The Supreme Court has recently defined the offense of monopolization to consist of two elements: "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[24] Insofar as the first element—monopoly power—is concerned, it is clear that the existence of such power may be inferred from the possession of a predominant share of a relevant market.[25] In *United States* v. *Aluminum Co. of America*,[26] Judge Learned Hand stated that possession of 90 percent of a relevant market "is enough to constitute a monopoly; it is doubtful whether 60 or 64 percent would be enough; and certainly 33 percent is not." In *American Tobacco Co.* v. *United States*,[27] the Supreme Court assumed, in a case involving a collusive oligopoly among the top three tobacco companies, that possession of "over *two-thirds* of the entire domestic field of cigarettes, and . . . over 80 percent of the field of comparable cigarettes" constituted "a substantial monopoly."[28]

There is some support in the language of two Supreme Court decisions for the proposition that a monopolization charge cannot be based on the mere acquisition of patents. Thus, in *Automatic Radio Manufacturing Co.* v. *Hazeltine Research, Inc.*,[29] the Supreme Court observed that "The mere accumulation of patents, no matter how many, is not in and of itself illegal." Similarly, in *United States* v. *Singer Manufacturing Co.*[30] the Court noted that "There is no claim by the Government that it is illegal for one merely to acquire a patent

[22] *Id.*

[23] Section 2 of the Sherman Act, 15 U.S.C. §2, provides that "Every person who shall monopolize, or attempt to monopolize . . . shall be deemed guilty of a misdemeanor."

[24] United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966).

[25] *Id.* at p. 571.

[26] 148 F.2d 416, 424 (2d Cir. 1945).

[27] 328 U.S. 781 (1946).

[28] *Id.* at p. 797. See also United States v. United Shoe Machinery Corp., 110 F. Supp. 295 (D. Mass. 1953), *aff'd* 347 U.S. 521 (1954), where United's 75-85% share was deemed to give it control of the market.

in order to exclude his competitors . . . or that a licensee cannot lawfully acquire the covering patent in order better to enforce it for his own account, even when the patent dominates an industry in which the licensee is the dominant firm."[31] However, reliance upon the *dicta* in these decisions is risky. The *Alcoa* case stands for the proposition that a firm possessing monopoly power will be held to violate Section 2 unless "it falls within the exception established in favor of those who do not seek, but cannot avoid, the control of a market";[32] and certainly the achievement of market dominance as the result of patent acquisitions cannot be termed "growth or development as a consequence of a superior product, business acumen, or historic accident."[33] Lower court decisions also indicate that the acquisition of

The Supreme Court in United States v. duPont, 351 U.S. 377 (1956) held that the relevant market in a monopolization case should be determined by the reasonable interchangeability or cross-elasticity of demand between the product in question and substitutes for it. However, it is doubtful whether the duPont standards for determining a relevant market still have any validity. The Supreme Court in a series of cases has virtually abandoned the duPont test with respect to cases challenging a merger under § 7 of the Clayton Act. Thus, in Brown Shoe Co. v United States, 370 U.S. 294 (1962), the Court held that although

> . . . the outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it . . . within this broad market, well-defined submarkets may exist which, in themselves, constitute product market for antitrust purposes. The boundaries of such a submarket may be determined by examining such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct prices and specialized vendors.

In later § 7 cases the Court has further retreated from the duPont standards so that in a § 7 case, at least, if any of the criteria for determining a submarket set forth in Brown Shoe apply, the government has met its burden of establishing a relevant market. See United States v. Aluminum Co. of America, 377 U.S. 271 (1964); United States v. Continental Can, 378 U.S. 441 (1964); *cf.* United States v. Pabst Brewing Co., 384 U.S. 546 (1966). And in United States v. Grinnell Corp., 384 U.S. 563 (1966), the Supreme Court apparently abandoned the relevant market tests of duPont entirely and stated at p. 573, "We see no reason to differentiate between 'line' of commerce for the purposes of the Sherman Act." The Court, however, may have been limiting this statement to service markets, for it continued, ". . . in [United States v. Philadelphia National Bank, 374 U.S. 321 (1963)] *services* not *products* in the mercantile sense, were involved. In our view the lumping together of various kinds of *services* makes for the appropriate market here as it did in the §7 case."

[29] 339 U.S. 827, 834 (1950).

[30] 374 U.S. 174, 189 (1963).

[31] But see Kobe, Inc. v. Dempsey Pump Co., 198 F.2d 416 (10th Cir. 1952).

[32] United States v. Aluminum Co. of America, 148 F.2d 416, 431 (2d Cir. 1945).

[33] United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966).

patent rights by a dominant firm does not fall within the "thrust upon" defense. In *United States* v. *United Shoe Machinery Corp.*,[34] Judge Wyzanski dealt with United's acquisition of patents and stated:

> About 5% of United's patents were acquired. United contends that the patents acquired by United have been generally to enable it to pursue development which might otherwise have been blocked, or to resolve patent controversies, or for hedging purposes. *But most of these purposes could have been served by non-exclusive licenses. Taking the further step of acquiring patents has . . . buttressed United's market power.* In some instances . . . the acquisitions made it less likely that United would have competition. (Emphasis added.)[35]

Later in his opinion Judge Wyzanski indicated that while the acquisition of patents based on one's own research would fall within the ambit of "thrust upon" defense, the same could not be said for purchase of patents from others.[36]

Thus, for any company occupying a dominant market position—i.e., any company holding more than a 66 percent share of any market—any purchase of patents or acquisition of exclusive licenses under patents covering a product or method which could be used in that market could be considered to constitute acts of monopolization.[37]

Certainly it is clear that the Antitrust Division believes that a monopolization charge can be sustained by showing that the alleged monopolist has acquired a substantial number of patents. Donald Turner stated in "Patents, Antitrust and Innovation," at page 155, "The cases do indicate that it is possible to violate Section 2 of the Sherman Act by monopolizing, in substantial part by acquisition, the inventions of a particular field. I suspect that the past cases have stated this offense too conservatively."

On the other hand, there is little danger in the acquisition of non-exclusive licenses. Professor Turner, in the above-referred to article, carefully excluded non-exclusive licenses when stating that both a patent and a patent license are assets within the meaning of Section 7 of the Clayton Act. Moreover, even if considered to be an asset, it is difficult to see how the acquisition of a non-exclusive license could be held to adversely affect competition. Indeed, it could be argued that the acquisition of a non-exclusive license is a pro-

[34] 110 F. Supp. 295 (D. Mass. 1953), *aff'd* 347 U.S. 521 (1954).

[35] *Id.* at 333.

[36] *Id.* at 342, *cf.* United States v. General Electric Co., 82 F. Supp. 753, 816 (D.N.J. 1949).

[37] In United States v. General Electric Co., 82 F. Supp. 753, 893 (D.N.J. 1949), a §2 case, General Electric's licensees' sales were included in determining its share of the market.

competitive act since it permits the licensee to compete with the patentee and other licensees in the manufacture and sale of the patented invention. Similarly, it is difficult to conceive of a monopolization charge being sustained by the mere acquisition of non-exclusive licenses *standing alone.*

## GRANTBACKS

It is quite common for patentees to require their licensees to grant back rights under any improvement which the licensees may develop. Grantbacks may take the form of an assignment of improvement patents or the grant of an exclusive or non-exclusive license of improvement patents to the licensor. Grantbacks can be justified on the ground that if a licensee develops an improvement on the licensed patent he would be at a competitive advantage over the patentee—the licensee would be able to practice both the basic patent and the improvement, whereas the licensor would be restricted to practicing the basic patent; and this would be unfair to the licensor.

In *Transparent-Wrap Mach. Corp.* v. *Stokes & Smith Co.*[38] the Supreme Court held that "the inclusion in the license of the condition requiring the licensee to assign improvement patents is not per se illegal and unenforceable."[39] However, the Court made clear "that does not mean the practice we have here has immunity under the antitrust laws" and remanded the case so the court of appeals could consider whether, in the factual context of that case, the grantback provision violated the antitrust laws. In general, the lower courts have followed the *Transparent-Wrap* decision and have upheld grantback clauses in the absence of some proof of a conspiracy to restrain or monopolize trade.[40] On the other hand, grantbacks have been struck

[38] 329 U.S. 637 (1947).

[39] *Id.* at 648.

[40] Zajicek v. Koolvent Metal Awning Corp. of America, 283 F.2d 127, 131-32 (9th Cir., 1960); Binks Manufacturing Co. v. Ransburg Electro-Coating Corp., 281 F.2d 252, 259 (7th Cir. 1960), *cert. dismissed* 366 U.S. 211 (1961); Cutter Laboratories v. Lyophile-Cryochem Corp., 179 F.2d 80 (9th Cir., 1949); Barr Rubber Products Co. v. Sun Rubber Co., 277 F. Supp. 484, 506 (S.D.N.Y. 1967); Old Dominion Box Co., Inc. v. Continental Can Co., 273 F. Supp. 550 (S.D.N.Y. 1967) *aff'd* 393 F.2d 321 (2d Cir., 1968); Sperry Products Inc. v. Aluminum Co. of America, 171 F. Supp. 901, 937 (N.D. Ohio, 1959) *aff'd* 285 F.2d 911 (6th Cir. 1960); International Nickel Co. v. Ford Motor Co., 166 F. Supp. 551, 565-66 (S.D.N.Y. 1958); B & M Corp. v. Miller, 150 F. Supp. 942 (W.D. Ky. 1967); United States v. Birdsboro Steel Foundry & Mach. Co., 139 F. Supp. 244, 261 (W.D. Pa. 1956); Modern Art Printing Co. v. Skeels, 123 F. Supp. 426 (D.N.J. 1954), *rev'd on other grounds* 223 F.2d 719 (3d Cir., 1955).

down when used as part of an attempt to monopolize or when used in conjunction with pooling agreements to fix prices or allocate markets or fields of use.[41]

In the *General Electric* (lamp) case [42] the court found that General Electric had monopolized the incandescent electric lamp industry and condemned a requirement that licensees grant General Electric non-exclusive licenses "under any and all patents or patent rights presently owned or controlled or which may thereafter be owned or controlled by the licensee" covering incandescent lamps.[43] According to the Court:

> Since the main buttress of [General Electric's] position in the incandescent electric lamp industry was patents, it followed the conscious policy of funneling into its control all patents held by its licensees and touching any phase of the industry. . . .
> . . . General Electric regimented an industry by, among other things, its acquisition of patents to perpetuate a control over the incandescent electric lamp long after its basic patents expired to maintain a dominant position rendering it possible for it to eliminate competition and maintain an industrial monopoly of the type recognized by the *Transparent-Wrap* case to be an eventuality violative of the anti-trust laws. Its aggregation of patents into its control permitted General Electric to monopolize patents and by so doing it violated § 2 of the Sherman Anti-Trust Act.[44]

In the *General Electric* (Carboloy) case,[45] the court found that the defendants, who were parties to an international patent pool, had conspired and attempted to monopolize. One defendant, the Carboloy Company, had granted licenses to manufacturers and purported agents on the condition that they assign or license back future patent rights. The court condemned these conditions and distinguished the *Transparent-Wrap* case.

> In that case, however, the contracting parties were two relatively small concerns and were without an extensive control of market conditions. . . . The employment of basic patents, or patents which may be basic, to compel the transfer of future patent rights, is

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[41] Hartford-Empire Co. v. United States, 323 U.S. 386 (1945); Kobe, Inc. v. Dempsey Pump Co., 198 F.2d 416 (10th Cir., 1952); United States v. Associated Patents, Inc., 134 F. Supp. 74 (E.D. Mich. 1955); United States v. Imperial Chemical Industries, 105 F. Supp. 215 (S.D.N.Y. 1952); United States v. Besser Manufacturing Co., 96 F. Supp. 304 (E.D. Mich. 1951); United States v. Aluminum Co. of America, 91 F. Supp. 333, 410 (S.D.N.Y. 1950); United States v. General Electric Co. (lamp), 82 F. Supp. 753 (D.N.J. 1949); United States v. General Electric Co. (Carboloy), 80 F. Supp. 989 (S.D.N.Y. 1948).

[42] United States v. General Electric Co., 82 F. Supp. 753 (D.N.J. 1949).

[43] *Id.* at 815.

[44] *Id.* at 815-16.

[45] United States v. General Electric Co., 80 F. Supp. 989 (S.D.N.Y. 1948).

> condemned per se, when practiced on a scale such as is found in this suit.[46]

The Antitrust Division does not agree with the holding of *Transparent Wrap* and believes that a provision of a license which requires the licensee either to assign, or to grant exclusive licenses under, any improvement patents to the patentee is per se unlawful. Just after Donald F. Turner was appointed Assistant Attorney General in Charge of the Antitrust Division, he informed the Antitrust Law Section of the American Bar Association, "we shall also eventually seek to establish, contrary to *Trans-Wrap,* that a clause in a patent license requiring the licensee to grant back to the patentee all future improvement patents should be held to be unlawful per se for the simple reason that it is much more restrictive than necessary to protect the patentee's legitimate interest."[47] However, upon questioning, he limited his objections to grantbacks by way of either an assignment or an exclusive license.

> Q. In your attack on grantbacks, what grantbacks will be included? Assignments? Exclusive licenses? Non-exclusive licenses?
> A. The answer would include the grantback of the patent itself and the grantback of an exclusive license. . . . We will certainly not oppose as per se illegal a grantback of a non-exclusive license. Of course I cannot say that we would never oppose the grantback of a non-exclusive license. I think that prima facie such a grant would be all right, but you can get some rather complex cases involving patent licensing, cross licensing and a general pattern of unlawful restraints of which this grant might be a part. I would say, however, that speaking per se, the grantback of a non-exclusive license is all right.[48]

Any attack on *Transparent-Wrap* insofar as it relates to grantbacks accomplished through assignments or exclusive licenses may well result in the decision being overruled. Such grantback requirements remove the licensee's incentive to engage in further research and development. Since any inventions resulting from research and development would have to be turned over to the licensor, the licensee has nothing to gain by engaging in such research and development. Indeed, such an exclusive grantback clause could be viewed as merely a device to prevent innovative work which would develop new products or methods competitive with the licensed invention.

Any grantback which requires the licensing-back of improvements on other than the actual patents being licensed might also be held to

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[46] *Id.* at 1005-06.

[47] Turner, "Antitrust Enforcement Policy," 29 *American Bar Association Antitrust Journal,* 187, 188.

[48] *Id.* at 192.

go too far. Although the patentee may need grantbacks to ensure that one of its licensees does not, by developing improvements, drive it out of the market, there seems to be little justification for the patentee to use his patent monopoly to secure improvements unrelated to the patent under which he is granting a license. On the analogy of the tie-in cases, *infra,* the Supreme Court might hold that by using the leverage of one patent, the patentee is extending his monopoly into another field.

It would be wise for any company which makes a practice of using grantback clauses in its patent licenses to freely license the patent rights thus acquired to all comers. Such action would substantially reduce any risk of antitrust liability resulting from grantbacks. For example, in *International Nickel Co.* v. *Ford Motor Co.,*[49] the district court, after noting that the licensees were required to license back only patents which could not be exploited without risking infringement of International Nickel's (INCO) basic patent, stated:

> . . . In effect then, much of the control over the improvements during the life of the basic patent which INCO gains by the license-backs it already has by virtue of its basic patent. *On the other hand the INCO agreements assure that improvements will be disseminated throughout the long list of INCO's licensees without extra charge. The net effect may well be to increase rather than to decrease competition.* See *Transparent-Wrap Machine Corp. v. Stokes & Smith Co., supra.*[50] (Emphasis added.)

## Licensing Activities

A patent merely grants to the patentee "the right to exclude others from making, using or selling the invention throughout the United States."[51] Section 261 of the Patent Act[52] provides that:

> . . . patents shall have the attributes of personal property. Applications for patents, patents or any interest therein, shall be assignable in law by an instrument in writing. The applicant, patentee, or his assigns or legal representatives may in like manner grant and convey an exclusive right under his application for patents, or patents, to the whole or any specified part of the United States.

However, the Patent Code makes no provision for the licensing of patents. "The right of a patent owner to license the use of its patent is

[49] 166 F. Supp. 551 (S.D.N.Y. 1958).
[50] *Id.* at 566.
[51] 35 U.S.C. § 154.
[52] 35 U.S.C. § 261.

not a creature of statute, but of common law."[53]

Patent licenses fall into two broad categories—exclusive and non-exclusive. A non-exclusive patent license amounts to nothing more than a mere waiver by the patentee of his right to sue for infringement.[54] The distinguishing characteristic of an exclusive license is a promise, express or implied, by the licensor that he will not thereafter license others.[55] Since a patentee has the right to exclude others from making, using or selling the patented invention, he may grant a license to another to merely make, to merely use, or to merely sell the patented invention or he may grant a license under any combination of these rights.[56]

In *United States* v. *General Electric Co.*,[57] where the Supreme Court upheld a license provision which permitted the patentee to fix the first sales price at which its licensee could sell, the Court stated, at page 489, "the patentee may grant a license to make, use and vend articles under the specifications of his patent for any royalty, or upon any condition the performance of which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure." However, even under the *General Electric* rationale restrictions which are included in a licensing agreement at the behest or for the benefit of licensees to restrict competition among themselves will be held to violate the antitrust laws. Such restrictions are not related to a patent owned by the party imposing or benefiting from the restrictions and hence are not within the scope of the patent laws.[58] "While the patentee remains free to protect himself, within the scope of the patent, by restricting the licensee . . . [r]estraints upon competition for the benefit of the licensee are to be measured not by

[53] L. L. Brown Paper Co. v. Hydroiloid, Inc., 32 F. Supp. 857, 868 (S.D.N.Y. 1939) *aff'd* 118 F.2d 674 (C.A. 2, 1941), *cert. denied,* 314 U.S. 653 (1941).

[54] Waterman v. Mackenzie, 138 U.S. 252 (1891); General Talking Pictures Corp. v. Western Electric Co., Inc., 304 U.S. 175, 181 (1938) *rehearing* 305 U.S. 124 (1938); De Forest Radio Telephone & Telegraph Co. v. United States, 273 U.S. 236, 242 (1927); Henry v. A. B. Dick Co., 224 U.S. 1 (1912).

[55] Overman Cushion Tire Co. v. Goodyear Tire & Rubber Co., 59 F.2d 998 (2d Cir., 1932), *cert. denied,* 287 U.S. 651 (1932); Western Electric Co. v. Pacent Reproducer Corp., 42 F.2d 116 (2d Cir., 1930).

[56] Brulotte v. Thys Co., 379 U.S. 29 (1964); Adams v. Burke, 84 U.S. 453 (1873); Rock-Ola Manufacturing Co. v. Filben Mfg. Co., 168 F.2d 919 (8th Cir., 1948), *cert. dism'd* 335 U.S. 855, *cert. denied* 335 U.S. 892 (1948).

[57] 272 U.S. 476 (1926).

[58] *Cf.* McCullough v. Kammerer Corp., 166 F.2d 759 (9th Cir., 1948); Nordhaus & Jurow, *Patent-Antitrust Law,* 117 (1961); and see *Antitrust Problems in the Exploitation of Patents,* Staff Report to Subcommittee No. 5 of the Committee on the Judiciary, House of Representatives, 84th Cong., 2d Sess., 1956, reprinted in 3 Hoffmann, *Antitrust Law and Techniques,* 353, 367-68 (1963).

the standards of the patent laws, but by the general rules governing the validity of competitive restrictions . . . ."[59]

Also, it should be borne in mind that even though various license restrictions might be upheld if standing alone, the courts will hold such restrictions to violate the Sherman Act when they find that a patent licensing arrangement among a group of competing firms is the basis for a price-fixing or market-sharing agreement or is part of an attempt to monopolize.[60] "The value of the patent monopoly lies largely in its transferability, through licensing arrangements. But patent licenses cannot be used simply as a means for dividing a market among competitors, and of eliminating competition beyond the scope of the patent claims."[61]

*Refusal To License*

There is no obligation on the part of a patentee to grant licenses under his patent so long as his decisions not to grant licenses are made unilaterally.[62]

> It is the right of a patentee to withhold licenses if he sees fit to do so and to confine his patented methods to the manufacture of his own goods. . . . Any advantage accruing from this practice is not unlawful, but is attributable to the monopoly conferred by the patent statute.[63]

On the other hand, any agreement between the patentee and others to restrict or prohibit the licensing of his patents would violate the Sherman Act.[64] Moreover, it should be borne in mind that in appropriate cases where patent misuses have formed the basis of antitrust violations, the Supreme Court has at times held that compulsory licensing at reasonable rates is an appropriate remedy to correct past and prevent future violations.[65]

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[59] United States v. Crown Zellerbach Corp., 141 F. Supp. 118, 127 (N.D. Ill. 1956).

[60] United States v. New Wrinkle, 342 U.S. 371 (1952); United States v. United States Gypsum Co., 333 U.S. 364 (1948); United States v. Line Material Co., 333 U.S. 287 (1948); Hartford-Empire Co. v. United States, 323 U.S. 386 (1945); United States v. Masonite Corp., 316 U.S. 265 (1942).

[61] United States v. Crown Zellerbach, 141 F. Supp. 118 at 126 (N.D. Ill. 1956).

[62] But see *infra,* pp. 118-119.

[63] Sylvania Industrial Corp. v. Visking Corp., 132 F.2d 947, 958 (4th Cir. 1943).

[64] See *infra,* p. 113.

[65] See, e.g., United States v. United States Gypsum Co., 333 U.S. 364, 366 (1948); Besser Mfg. Co. v. United States, 343 U.S. 444, 447 (1952); Hartford-Empire Co. v. United States, 323 U.S. 386, 417 (1945).

*Territory*

Section 261 of the Patent Code,[66] which provides that "the applicant, patentee or his assigns or legal representatives may . . . grant and convey an exclusive right . . . to the whole or any specified part of the United States," has been held to authorize territorial restrictions on the scope of a patent license.[67] "Territorial licenses, without more, are a reasonable means for the patentee to secure the reward granted to him."[68] There is therefore little, if any, antitrust risk involved in granting patent licenses restricted in geographic scope.[69]

*Fields of Use*

Under present law, field-of-use restrictions which limit the licensee's utilization of the patent to a certain field of use or to a particular style are valid.[70] In *General Talking Pictures Corp.* the Supreme Court held that field-of-use restrictions are consonant with the patent grant and stated at page 126, "where a patented invention is applicable to different uses, the owner of the patent may legally restrict a licensee to a particular field and exclude him from others. . ."

The Department of Justice, however, last year filed a number of cases in an attempt to overturn or narrow the holding of *General Talking Pictures.* In *United States* v. *Sterling Drug, Inc.*,[71] *United States* v. *Syntex Corp.*[72] and *United States* v. *Glaxco Group Limited*[73] the government is challenging various drug companies' practice of limiting their patent licensees' sales of licensed drugs to a finished dosage form only, and restricting the licensees from selling the licensed drugs in bulk form. However, even if the Antitrust Division is successful in getting the field-of-use restrictions in these cases struck down, it is questionable whether the field-of-use restrictions would be held to constitute a per se violation of the Sherman Act.

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[66] 35 U.S.C. § 261.

[67] Brownell v. Ketcham Wire & Manufacturing Co., 211 F.2d 121, 128 (9th Cir., 1954).

[68] United States v. Crown Zellerbach Corp., 141 F. Supp. 118, 127 (N.D. Ill. 1956).

[69] *Cf.* Hartford-Empire Co. v. United States, 323 U.S. 386 (1945); *reconsidered* 324 U.S. 570 (1945).

[70] General Talking Pictures Corp. v. Western Electric Co., 305 U.S. 124 (1938); Atlas Imperial Diesel Engine Co. v. Lanova Corp., 79 F. Supp. 1002 (D. Del. 1948).

[71] Civ. No. 175-68 (D.N.J., Feb. 23, 1968).

[72] Civ. No. 478-68 (D.D.C., Feb. 23, 1968); *dismissed without opinion,* 383 *Antitrust & Trade Regulation Reporter* 4 (Oct. 10, 1968).

[73] Civ. No. 558-68 (D.D.C., March 4, 1968).

Even under present law, however, field-of-use restrictions have been struck down when used to regulate and prevent competition between licensees. There would be a substantial antitrust risk when a patentee with a dominant market position parcels out licenses to various licensees, granting each of them the exclusive right to practice its patent in a particular field of use, for in such a situation the patentee may be held not to be acting within the permissible scope of its patent rights but, rather, to be regulating and suppressing competition among its licensees. Thus, in the *Hartford-Empire* case,[74] the District Court described Hartford-Empire's restrictive licensing program in the following terms:

> By the operation of the restrictive license plan, Hartford managed to protect the monopoly that Corning attained over the manufacture of the lines of ware particularly reserved to it; it was able to establish a milk bottle monopoly through its license to Thatcher, and a fruit jar monopoly through its license to Ball Brothers.[75]

The Court held that such conduct violated the Sherman Act and stated:

> If the Hartford-Empire Company had extended to its licensees unrestricted licenses, permitting them the use of its machinery without limitations upon the use, kind or quantity, etc., of the unpatented product of the machine and had left them to sell at any price that open competition might dictate, free from any hidden threat, it could not be said that the patentee or licensor would fail to obtain a reasonable reward within the grant of the patent . . . . The court, however, is distinctly of the opinion, in the light of the entire record, that the dominance and control over the field of unpatented glassware are the primary objects of the restrictive licensing system pursued by Hartford, and that that control is so complete, so minute, as to preclude any thought that it is the unplanned result of the exercise of privileges contained within the patent grant.[76]

While the *Hartford-Empire* case involved an assortment of restrictive practices, including cross-licensing and price-fixing by the dominant firms in an industry, it is a clear indication that any licensing plan which regulates and suppresses competition among licensees through the mechanism of field-of-use restrictions is inherently dangerous.

Of course, the fact that licenses do not by their terms grant exclusive licenses with respect to various fields of use would not save any such program if in practical effect the grant of non-exclusive licenses with

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[74] United States v. Hartford-Empire Co., 46 F. Supp. 541 (N.D. Ohio 1942), *aff'd* 323 U.S. 386 (1945), *reconsidered* 324 U.S. 570 (1945).

[75] 46 F. Supp. 615.

[76] 46 F. Supp. 614-15. See also United States v. Crown Zellerbach, 141 F. Supp. 118 (N.D. Ill., 1956).

respect to particular fields of use were actually limited so that only one licensee was able to practice each particular field of use.

*Customer Restrictions*

A customer restriction in a licensing agreement limits the licensee to selling to either a specifically named customer or to a restricted class of purchasers. Although there is a paucity of decisions dealing with customer restrictions,[77] the Seventh Circuit recently held such a restriction to be lawful.[78] Moreover, so long as *General Talking Pictures, supra* remains good law, it would seem that customer restrictions do not violate the antitrust laws since the same rationale which justifies field-of-use restrictions would justify the use of customer restrictions.

*Quantity Limitation*

A quantity limitation limits the number of licensed devices that the licensee may make, use or sell. In the absence of some unlawful purpose, such as price-fixing, quantity limitations have been held to be lawful. "The cases are to the effect [that an] owner of a valid product patent may by license restrict production of the licensee to a specified quantity . . ."[79] On the other hand, when quantity restrictions have been utilized to control competition in an unpatented item or in conjunction with other restrictions in an attempt to monopolize or fix prices they have been struck down. Thus, in *American Equipment Co.* v. *Tuthill Bldg. Material Co.*,[80] the owner of a patent covering brick handling machines negotiated with various brick manufacturers and represented to them that through the use of the patented brick setting machines both the output and the price of brick in the Chicago area could be controlled. The brick manufacturers all entered into licens-

[77] But see pp. 115-116, *infra* with respect to restrictions on purchasers.

[78] Armstrong v. Motorola, Inc., 374 F.2d 764 (7th Cir., 1967), *cert. denied* 389 U.S. 830 (1967); *cf.* Aluminum Co. of America v. Sperry Products, Inc., 285 F.2d 911, 926-27 (6th Cir., 1960); Sinko Tool & Manufacturing Co. v. Casco Products Corp., 89 F.2d 916 (7th Cir. 1937); Radio-Craft Co. v. Westinghouse Electric & Manufacturing Co., 7 F.2d 432 (3d Cir., 1925).

[79] United States v. E. I. duPont de Nemours & Co., 118 F. Supp. 41, 226 (D. Del. 1953), *aff'd on other grounds,* 351 U.S. 377 (1956), and see United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir., 1945); Q-Tips, Inc. v. Johnson & Johnson, 109 F. Supp. 657 (D.N.J. 1951).

[80] 69 F.2d 406 (7th Cir. 1934).

ing arrangements with the patent owner which included quantity restrictions on the number of bricks each licensee could sell and which provided that the licensee would pay a royalty six times the regular royalty rate for any brick sold in excess of their quota. The court, after acknowledging that a patentee "may limit the number or amount of patented articles the licensee may make,"[81] held the quantity restriction unlawful because it was part of a conspiracy to fix the price of the unpatented brick. Similarly, in *Q-Tips, Inc.* v. *Johnson & Johnson, supra,* Judge Forman explained that he struck down quantity limitations in the *General Electric* (lamp) case because:

> The defendant in that case held patents which did not completely cover all stages of the manufacture of incandescent lamps and had combined a number of practices which included, among others, limitations upon the sources of material necessary to produce incandescent lamps so as to seriously inhibit their manufacture, which taken in their entirety spelled out an unlawful monopoly.[82]

Donald Turner, when he was Assistant Attorney General in Charge of the Antitrust Division, also viewed quantity restrictions with some dubiety. He stated, in 1966, ". . . I might note that if price-fixing is to be prohibited, there is no apparent reasonable basis for giving quantity restrictions more favorable treatment."[83] The government, however, has never brought a case attacking the use of quantity limitations unless some other incriminating facts were involved.

*Royalties*

(a) *Rate*—The amount or rate of royalties which licensee may be charged is entirely within the patentee's discretion. "A patent empowers the owner to exact royalties as high as he can negotiate with the leverage of that monopoly."[84]

(b) *Duration*—The patent laws grant the patent owner a monopoly for a 17-year term.[85] A licensing agreement which provides for the payment of royalties after the expiration of the patent being licensed or after the expiration date of all the patents in a package license is unlawful per se. As the Supreme Court stated in *Brulotte* v. *Thys Co., supra* at pages 32-33:

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[81] *Id.* at p. 408.

[82] 109 F. Supp. 660.

[83] Turner, "Patents, Antitrust and Innovation," *supra,* note 21 at 154.

[84] Brulotte v. Thys Co., 379 U.S. 29, 33 (1964); American Photocopying Equipment Co. v. Rovico, Inc., 384 F.2d 813 (7th Cir., 1967), *cert. denied,* 390 U.S. 945 (1968).

[85] 35 U.S.C. § 154.

> . . . a patentee's use of a royalty agreement that projects beyond the expiration date of the patent is unlawful *per se*. If that device were available to patentees, the free market visualized for the post-expiration period would be subject to monopoly influences that have no proper place there.

There is a split in the circuits as to whether a package license must provide for a diminution of royalties as the patents included in the license expire. In *Rocform Corp.* v. *Acitelli-Standard Concrete Wall, Inc.*,[86] the Sixth Circuit held that a package license which "contains no diminution of license fee at the expiration of the most important patent and contains no termination clause at the will of the licensee, constitutes, in effect, an effort to continue to collect royalties on an expired patent"[87] and hence constituted patent misuse. The Sixth Circuit in *Rocform* took a rather strange position since it held that a patentee could not collect for infringement if the license didn't provide for either the diminution of royalties or an option for the licensee to terminate at the expiration of the most important patent but that a licensee could not sue to obtain relief from the package license unless he could show a refusal on the part of the patentee to license the desired patent as a separate item. The court stated at page 681:

> Clearly, where a licensee seeks relief from a patent package contract which he had signed voluntarily, he should be able to show a demand by him (and a refusal!) for the desired patent or patents as a separate item or items. *Automatic Radio Mfg. Co.* v. *Hazeltine Research,* 339 U.S. 827, 70 S.Ct. 894, 94 L. Ed. 1312 (1950). Such a demand is not, however, held essential to a defense of misuse when the patentholder seeks equitable relief from infringement while still pursuing the illegal practice. *Morton Salt Co.* v. *G. S. Suppiger Co.,* 314 U.S. 488, 62 S.Ct. 402, 86 L.Ed. 363 (1942).[88]

The Tenth Circuit recently rejected the *Rocform* holding in *Well Surveys, Inc.* v. *Perfo-Lay Inc.*[89] The court stated:

> . . . If the *Rocform* decision is taken as holding that a package license, including both important and unimportant patents, is misuse *per se* when there is no diminution in royalty, or provision for termination, after the expiration of an important patent, we respectfully disagree . . . . The relative importance of patents has no significance if a licensee is given the choice to take a patent alone or in combination on reasonable terms. Freedom of choice is the controlling question.[90]

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[86] 367 F.2d 678 (6th Cir. 1966).

[87] *Id.* at p. 681.

[88] The Sixth Circuit is presumably basing its distinction upon a distinction between patent misuse and a violation of the antitrust laws.

[89] 1968 Trade Cases ¶ 72,482 (10th Cir., 1968).

[90] *Id.* at 85, 573.

If the *Rocform* decision is eventually adopted by the Supreme Court there would then be a substantial risk in continuing to collect royalties after the expiration of the most important, or any other, patent included in a package license agreement. However, until the Supreme Court rules, it appears to be a reasonable risk to follow the *Well Surveys* rationale, so long as the licensor does not coerce a licensee to take all of the patents in the package and permits the licensee to exclude any patent which it does not want included in the license.[91] In this regard, if any package license provides that the license will include any improvement patents which may be obtained by the licensor in the future, a provision which gives the licensee the option of rejecting the inclusion of any such improvement patents should also be included in the license.

(c) *Royalty Base*—A patent owner and a licensee may validly agree upon any royalty base if no unlawful purpose or intent is involved. Licenses which provide that a licensee will pay royalties based on its total production or total sales regardless of whether any patents are actually being utilized by the license have been upheld. Thus, in *Automatic Radio Manufacturing Co., Inc.* v. *Hazeltine Research, Inc.*[92] the Supreme Court upheld the provision in Hazeltine's license agreement which required Automatic Radio to pay royalties based on its sales of radio broadcasting receivers regardless of whether any of Hazeltine's patents were utilized in these receivers and stated:

> . . . We cannot say that payment of royalties according to an agreed percentage of the licensees' sales is unreasonable. Sound business judgment could indicate that such payment represents *the most convenient method* of fixing the business value of the privileges granted by the licensing agreement . . . . Petitioner cannot complain because it must pay royalties whether it uses Hazeltine patents or not. What it acquired by the agreement into which it entered was the privilege to use any or all of the patents and developments as it desired to use them. If it chooses to use none of them, it has nevertheless contracted to pay for the privilege of using existing patents plus any developments resulting from respondent's continuous research. We hold that in licensing the use of patents to one engaged in a related enterprise, it is not per se a misuse of patents to measure the consideration by a percentage of the licensee's sales. (Emphasis added.)[93]

On the other hand, if the provisions calling for royalties on the licensee's total production or total sales are not mutually agreed upon for the convenience of the parties, but are the result of coercion by the

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[91] For a fuller discussion of package licenses, see pp. 111-112 *infra*.

[92] 339 U.S. 827 (1950).

[93] *Id.* at 834.

patentee, there is little doubt that the courts, on the analogy of the tie-in cases,[94] would hold such a coercively induced provision to be an unlawful extension of the patent monopoly. Moreover, if the purpose of such a royalty base is to effectuate an agreement among competitors to restrict the types of goods they will sell, it violates the Sherman Act. For example, in *United States* v. *United States Gypsum Co.*,[95] the Supreme Court held that United States Gypsum's use of a royalty provision in a number of licenses which required licensees to pay royalties on the manufacture of unpatented board was "strongly indicative of an agreement not to manufacture unpatented board, and the testimony of the witnesses is ample to show that there was an understanding, if not a formal agreement, that only patented board would be sold. Such an arrangement in purpose and effect increased the area of the patent monopoly and is invalid."[96]

(d) *Varying Royalty Rate*—Varying royalty rates which increase or decrease with the volume of a licensee's sales or production have been upheld by the courts.[97] In the *General Electric* (lamp) case, the district court, although holding that General Electric had violated Sections 1 and 2 of the Sherman Act, approved license provisions in which licensees' quotas for the manufacture and sale of incandescent lamps were based on a percentage of General Electric's net sales and which based royalties on General Electric's net sales price. The court rejected the government's argument that these restrictions served to fix prices.

> A patentee is free, in establishing a royalty on a patent to fix any base that it desires. This figure may be high and thus force licensees to charge prices higher than it, or it could charge a flat price rather than a percentage royalty. At any rate, General Electric based royalties upon a fixed percentage of its prices up to the limit of the quota, and an increased percentage for sales in excess of the quota, the latter for purposes of forcing the . . . licensees to remain within the quota assigned them. A patent owner, of necessity, would not use a base that could be altered at will by a licensee. There is no merit, therefore, to the Government's charge that General Electric based royalties upon its prices for the purpose of price fixing.[98]

In *DuPont, supra*, the government charged DuPont with monopolizing the domestic cellophane market and challenged, *inter alia*, Du-

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[94] See pp. 108-111, *infra*.

[95] 333 U.S. 364 (1948).

[96] *Id.* at 397

[97] United States v. duPont, 118 F. Supp. 41 (D. Del. 1953), *affirmed on other grounds*, 351 U.S. 377 (1956), United States v. General Electric Co. (lamp), 82 F. Supp. 753 (D.N.J. 1949).

[98] 82 F. Supp. 876.

Pont's exclusive license with Sylvania which provided for an increased royalty rate whenever Sylvania's domestic sales under the licensed patent exceeded specified percentages of the total domestic sales of moistureproof cellophane. The district court held that this royalty provision was valid and stated:

> In its contentions of suppression of competition and assertion of monopoly power, plaintiff fails to come to grips with fact throughout the period that graduated royalties were in effect, Sylvania's entire moistureproof production fell within valid claims of [DuPont's] broad product patent. The record shows Sylvania produced moistureproof cellophane utilizing the patent. It was not required to pay any royalty if it developed types of cellophane not covered by the patent. On these facts, there is no authority to support the contention it would have been in any way illegal under the Sherman Act for DuPont to limit Sylvania's production. The cases are to the effect owner of a valid product patent may by license restrict production of the licensee to a specified quantity, at a specified place.[99]

However, the court went on to hedge this holding by noting that the restriction had no practical effect.

> As far as this monopoly case is concerned, evidence is clear the royalty provisions did not limit Sylvania's production . . . . And in all years, its domestic sales fell far short of the poundage permissible without additional royalty . . . . From the evidence Sylvania expanded and to the full extent of its financial abilities. It was not impeded by the royalty provisions of the agreement. Without a license it could not have competed at all.[100]

Despite the court's hedging language in *DuPont*, it is probably still safe to use a sliding scale royalty provision.

(e) *Discriminatory Royalty Rates*—Recently some cases have raised a question over a patentee's use of discriminatory royalty rates. In *La Peyre* v. *F.T.C.*[101] the owners of patents covering the only shrimp peeling machine on the the market also owned a shrimp canning business on the Gulf Coast. They leased the patented shrimp peeling machines to shrimp canners on the Gulf Coast at a use rental rate of 55¢ per 100 cycles of the machine but charged a use rental of $1.10 per 100 cycles to shrimp canners on the Pacific Coast. They claimed that this differential was justified because it cost about twice as much to peel the smaller Pacific Coast shrimp than it did to peel the larger Gulf Coast shrimp when the peeling was done by hand. The F.T.C. held that the discriminatory use rental constituted an unfair trade practice under Section 5 of the Federal Trade Commission Act,[102]

[99] 118 F. Supp. 226.
[100] *Ibid.*
[101] 366 F.2d 117 (5th Cir. 1966).
[102] 15 U.S.C. § 45.

finding among other things that the patentees were attempting to protect their interests as Gulf Coast shrimp canners from the competition of the Pacific Coast canners.[103]

The Fifth Circuit, although disregarding the issue of motive, nevertheless affirmed the Commission's order insofar as it related to the discriminatory rental rate. The court noted that:

> [i]f petitioner did not have a monopoly of shrimp processing machinery, presumably competition would drive the price of such machinery to the Northwest canners down toward the level of the Gulf Coast canners, since the cost of processing shrimp by machine is the same regardless of the size of the shrimp. Conceptually, then, *the problem in this case is not one of Robinson-Patman type of discrimination, but of the duty of a lawful monopolist to conduct its business in such a way as to avoid inflicting competitive injury on a class of customers.* (Emphasis added.)[104]

The court therefore found that the patentee's conduct—"the utilization of monopoly power in one market resulting in discrimination and the curtailment of competition in another"[105] —violated Section 5 of the Federal Trade Commission Act.

The discriminatory rental provisions involved in the *La Peyre* case were also the subject of two private lawsuits. In *Laitram Corp.* v. *King Crab, Inc.*,[106] a district court held that the patentee's charging of discriminatory rates to Pacific Coast canners constituted patent misuse. The court stated at page 17, *"the right of a monopolist created by patent to exploit the monopoly conferred by such patent by charging a discriminatory price rate does not include the right to destroy or cripple a major segment of an industry,* but must yield in such case to the policy of eliminating competition [sic] embodied in the antitrust law . . ." (emphasis added). Similarly, in *Peelers Company* v. *Wendt*,[107] a district court upheld a jury verdict of treble damages based on the discriminatory rates to the West Coast shippers.

The general application of the holding of these cases is somewhat unclear. The shrimp peelers involved were unique—there were no other machines capable of peeling shrimp—and the discrimination involved—100 percent—was rather gross. Since the problem was not viewed as one analogous to Robinson-Patman type discrimination,[108]

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[103] Grand Caillou Packing Co., *Trade Regulation Reporter,* 1963-1965 Transfer Binder ¶ 16,927.

[104] 366 F.2d at 120.

[105] *Id.* at p. 121.

[106] 244 F. Supp. 9 (D. Alaska 1965).

[107] 260 F. Supp. 193 (W.D. Wash. 1966).

[108] The Robinson-Patman Act, 15 U.S.C. § 13, does not apply to leases or patent licenses, but only to sales.

the courts would presumably not demand total equality of royalty rates which would be required under such an analogy.[109] Indeed, the court in *Laitram Corp.* v. *King Crab, Inc., supra,* recognized that a patentee has the right to charge discriminatory royalties so long as the discrimination does not "destroy or cripple a major segment of an industry."

*Price-Fixing*

Over 40 years ago, in *United States* v. *General Electric,*[110] the Supreme Court held that a patentee may require its licensees to sell at first sale prices determined by the patentee. The government has twice sought to have the Supreme Court overrule *General Electric* and both times the Court, by a 4 to 4 vote, refused to do so.[111] In the *Huck* case the Supreme Court's decision may have been influenced by the fact that the government specifically told the district court that it was not seeking to have the *General Electric* case overruled. During oral argument the Supreme Court expressed some concern with the question of whether the government could ask the Court to overrule *General Electric* after having waived this issue below.

Although *General Electric* has never been overruled, its scope has been qualified by later decisions. Thus, the Supreme Court repeatedly has held that *General Electric* does not authorize concerted action by a patentee and his licensees to regulate the prices of an entire industry through multiple restrictive licenses,[112] and it has ruled that such illegal concerted action is established by proof that substantially identical "industry-wide [price-fixing] license agreements, [were] entered into with knowledge on the part of licensor and licensees of the adherence of others . . .";[113] "the concert of action [was] established by the favored licensee clause of the standard license agreement."[114] Although the Supreme Court found it unnecessary in *Gypsum* to decide "whether a mere plurality of licenses, each containing a

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109 See F.T.C. v. Morton Salt, 334 U.S. 37 (1948).

110 272 U.S. 476 (1926).

111 United States v. Line Material Co., 333 U.S. 287 (1948); United States v. Huck Manufacturing Co., 382 U.S. 197 (1965).

112 United States v. New Wrinkle, Inc., 342 U.S. 371 (1952); United States v. United States Gypsum Co., 340 U.S. 76, 84 (1950); United States v. United States Gypsum Co., 333 U.S. 364 (1948); United States v. Masonite Corp., 316 U.S. 265 (1942).

113 United States v. United States Gypsum Co., 333 U.S. 364, 389 (1948).

114 United States v. United States Gypsum Co., 340 U.S. 76, 83 (1950).

price-fixing provision, violates the Sherman Act,"[115] the Third Circuit subsequently held that a patentee violated the Sherman Act by issuing price-fixing licenses to two of the other four firms in the industry.[116]

Similarly, the Supreme Court has distinguished *General Electric* and has struck down a multitude of price-fixing schemes including efforts to control the resale price of optical lenses at the distribution level by parcelling out "manufacturing licenses" to wholesalers and retailers who ground the lens blanks;[117] complex licensing arrangements designed to regulate the resale prices and practices of thousands of wholesale jobbers of gasoline;[118] industry-wide patent licensing systems aimed at regulating prices of wallboard[119] and of a specialty paint;[120] and cross-licensing agreements giving one patentee a right to fix prices under another's patent on heavy duty fuses.[121]

In addition, lower courts have held that a patentee may not control the price of an unpatented article through the licensing of a patent covering the machine or process used to produce the unpatented article.[122] The courts, however, are divided over whether the patentee may by license regulate the price of an article only part of which—albeit a valuable and essential part—is covered by the patent; two different district courts took conflicting views with regard to the same patents and licensees.[123]

In view of the narrow scope of the *General Electric* doctrine and the fact that the government is looking for an appropriate case in which to attempt to get *General Electric* overruled, it would be a brave or foolhardy patentee who would include a price-fixing provision in a license or include any device which indirectly attempts to control the price at which licensees may sell.

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[115] 340 U.S. at 85.

[116] Newburgh Moire Co. v. Superior Moire Company, 237 F.2d 283 (3d Cir., 1956).

[117] United States v. Univis Lens Co., Inc., 316 U.S. 241 (1942).

[118] Ethyl Gasoline Corp. v. United States, 309 U.S. 436 (1940).

[119] United States v. United States Gypsum Co., 333 U.S. 364 (1948).

[120] United States v. New Wrinkle, Inc., 342 U.S. 371 (1952).

[121] United States v. Line Material Co., 333 U.S. 287 (1948).

[122] Cummer-Graham Co. v. Straight Side Basket Corp., 142 F.2d 646 (5th Cir., 1944); Barber-Colman Co. v. National Tool Co., 136 F.2d 339 (6th Cir., 1943); *cf.* American Equipment Co. v. Tuthill Bldg. Material Co., 69 F.2d 406 (7th Cir., 1934). *Contra:* Straight Side Basket Corp. v. Webster Basket Co., 82 F.2d 245 (2nd Cir., 1936).

[123] Compare General Electric Co. v. Willey's Carbide Tool Company, 33 F. Supp. 969, 977 (E.D. Mich. 1940) with United States v. General Electric Co., 80 F. Supp. 989, 1004-05 (S.D.N.Y. 1948); see, also, United States v. General Electric Co., 82 F. Supp. 753, 813 (D.N.J. 1949).

*Tying Arrangements*

There is no firmer doctrine of patent antitrust law than that which bars the patentee from using the leverage of its patent to extend its monopoly into another field through a tying arrangement. Such restrictions constitute patent misuse, and violate the antitrust laws if any substantial amount of commerce is involved, whether they are express or implied and whether the tied article is patented or unpatented.[124]

The tie-in cases in the patent field originally grew out of situations whereby a patentee attempted to require that a licensee of a patented machine purchase unpatented materials for use with the machine. For example, in the *Motion Picture Patents* case,[125] Motion Picture Patents Co., the owner of a patent on a motion picture projector, licensed a manufacturer to make and sell such projectors. However, the licensee was required to put a notice on each projector which limited its use so that it could only be used with film manufactured under another patent owned by Motion Picture Patents Co. After the patent on the film had expired, a motion picture exhibitor purchased a licensed projector and used it to exhibit film not covered by the expired patent. Motion Picture Patents sued for infringement. The Supreme Court held that the patentee or his licensee could not limit the use of a patented invention so that it could be used only with unpatented articles.

In *Carbice*[126] the Court held that the use of a patented dry-ice carrier could not be conditioned so that it could only be used with the unpatented dry-ice sold by the patentee. As Justice Brandeis stated at page 31:

> [A patentee] may not exact as a condition of a license that unpatented materials used in connection with the invention shall be purchased only from the licensor; and if it does so, relief against one who supplies the unpatented materials will be denied. The limited

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[124] International Salt Co. v. United States, 332 U.S. 392 (1947); Mercoid Corporation v. Minneapolis Honeywell Regulator Co., 320 U.S. 680 (1944); Mercoid Corporation v. Mid-Continent Invest. Co., 320 U.S. 661 (1944); B. B. Chemical Co. v. Ellis, 314 U.S. 495 (1942); Morton Salt v. Suppiger Co., 314 U.S. 488 (1942); Leitch Mfg. Co. v. Barber Co., 302 U.S. 458 (1938); International Business Machines v. United States, 298 U.S. 131 (1936); Carbice Corporation of America v. American Patents Development Corp., 283 U.S. 27 (1931); Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502 (1917); and see United States v. Paramount Pictures, Inc., 334 U.S. 131, 157 (1948); Ethyl Gasoline Corporation v. United States, 309 U.S. 436, 459 (1940).

[125] 243 U.S. 502 (1917).

[126] 283 U.S. 27 (1931).

> monopoly to make, use, and vend an article may not be "expanded by limitations as to materials and supplies necessary to the operation of it." *Motion Picture Patents Co.* v. *Universal Film Mfg. Co.*, 243 U.S. 502, 515.

The holding of *Motion Picture Patents* and *Carbice* has been reemphasized by the Supreme Court many times[127] and has been extended to prohibit the tying of the sale of one patented article to the sale of another patented article.[128]

Occasionally some lower courts have upheld patent tie-in arrangements on the theory that it would be impossible for a purchaser to use one patented component of a system unless he purchased another component. For example, in *International Manufacturing Co.* v. *Landon Inc.*,[129] Pace had a patent covering a swimming pool filter system, and Landon had a patent which embodied the basic combination of the Pace patent but also included an additional structure which made it possible to vacuum the pool. Landon tried to license manufacturers under its patent alone but was frustrated because manufacturers were unwilling to accept a license without also being licensed under Pace's patents. Landon thereupon entered into an agreement with Pace whereby (1) the Pace patent was assigned to Landon, (2) Landon granted Pace a non-exclusive license under both patents and (3) Landon promised to license the patents collectively only. In a suit for infringement, International Manufacturing Co. raised a claim that Landon's mandatory package licensing of all the patents constituted patent misuse. The court of appeals rejected this charge and noted that "no one has ever sought a license from Landon under the Pace patent alone or [Landon's] patent alone." It then distinguished *American Securit* v. *Shatterproof Glass Co.*,[130] which held mandatory package licensing to constitute patent misuse—because that case in-

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[127] Leitch Manufacturing Co. v. Barber Co., 302 U.S. 458 (1938); Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488 (1941); B. B. Chemical Co. v. Ellis, 314 U.S. 495 (1942); Mercoid Corporation v. Mid-Continent Invest. Co., 320 U.S. 661 (1944); Mercoid Corp. v. Minneapolis Honeywell Regulator Co., 320 U.S. 680 (1944); International Salt Co. v. United States, 332 U.S. 392 (1947).

[128] International Business Machines Corp. v. United States, 298 U.S. 131 (1936); Ethyl Gasoline Corp. v. United States, 309 U.S. 436, 459 (1940), ("The patent monopoly of one invention may no more be enlarged for the exploitation of a monopoly of another . . . than for the exploitation of an unpatented article . . . or for the exploitation or promotion of a business not embraced within the patent."); and see United States v. Paramount Pictures, Inc., 334 U.S. 131, 157 (1948), ("That enlargement of the monopoly of the copyright was condemned below in reliance on the principle which forbids the owner of a patent to condition its use on the purchase or use of patented or unpatented materials.")

[129] 336 F.2d 723, 729 (C.A. 9, 1964), *cert. denied* 379 U.S. 988 (1965).

[130] 268 F.2d 769 (3d Cir., 1959), *cert. denied*, 361 U.S. 902 (1959).

volved competing rather than blocking patents.

> . . . The evil of mandatory package licensing in that case was that the prospective licensee, in order to obtain a license under one patent, would be compelled to accept licenses under patents that were not necessarily needed. The same evil does not arise in mandatory package licensing of blocking patents. In such a case, the prospective licensee is being compelled to accept no more than he would, in any event, have to obtain in order to make worthwhile a license under any of the patents.[131]

The court then explained:

> . . . It follows that it is not an unlawful tying arrangement for a seller to include several items in a single mandatory package when the items may be reasonably considered to constitute parts of a single distinct product. A license package containing blocking patents may be considered a single distinct product. By definition, blocking patents disclose interdependent parts of the same product. The product—in this case a skimming and filter device for swimming pools—is no less a single product because its novel aspects are disclosed by two interlocking patents. *In such a case, not only is it not unreasonable to treat both patents as constituting a single product, but also licensing them in a package deal appears to be the most practical way of making them available for public use.* (Emphasis added.)[132]

Similarly, in *Dehydrating Process Co.* v. *A. O. Smith Corp.*,[133] the First Circuit held that a refusal to sell a patented silo unloading device unless the purchaser also used the patented glass-lined silo was not an antitrust violation. The patentee had sold its patented unloader for several years but 18 of 36 customers had complained that the unloaders did not work properly and six unloaders had to be taken back for refund. Despite educational efforts by defendant, customers did not install the unloaders in silos with correct mechanical tolerance. The refusal to sell unloaders separately, adopted after this experience, was held to be reasonable.[134]

However, in the *International Manufacturing* case the court indiated that if the patents could be used independently of each other it would have reached a different result. As the court stated at page 731,

> . . . If we had a case where the licensee could produce a commercially acceptable product utilizing one patent but not infringing the others in the package, then clearly we would not have a case involving blocking patents.

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131 336 F.2d 729-30.

132 *Id.* at p. 730.

133 292 F.2d 653 (1st Cir., 1961).

134 See also United States v. Jerrold Electronics Corp., 187 F. Supp. 545 (E.D. Pa. 1960), *aff'd per curiam,* 365 U.S. 567 (1961), where it was held that a tie-in of components of a community antenna system and a service contract was not unlawful when used for a limited time to enable a company to break into the market and where the use of untrained personnel would have provided unsatisfactory results.

Even in the *Dehydrating* case, the Court stated, at page 657, that

> . . . [i]f containers were made by others to defendant's essential specifications, that portion of defendant's policy which required the use or purchase of its own silos as distinguished from such others may well have been improper.

Thus, the exceptions of *International Manufacturing* and *Dehydrating* are very narrow and would apply in only a very limited number of situations.

*Package Licensing*

The patent tie-in cases have been extended to prohibit mandatory package licensing. In *Automatic Radio Manufacturing Co.* v. *Hazeltine Research Inc.*,[135] Automatic Research claimed that Hazeltine's refusal to grant a license under any one or more patents to anyone who refused to take a license under all of the patents in the package constituted patent misuse. The Supreme Court held that there was no evidence to support this charge, but, citing *United States* v. *Paramount Pictures, Inc.*,[136] stated that "conditioning the granting of a license under one patent upon the acceptance of another and different license" is unlawful.[137]

Lower court decisions since *Hazeltine* have made clear that it is unlawful to engage in mandatory package licensing. Thus, in *American Securit Co.* v. *Shatterproof Glass Corp.*,[138] the Third Circuit held mandatory package licensing to constitute patent misuse and stated:

> Mandatory package licensing is no more than the exercise of the power created by a particular patent monopoly to condition the licensing of that patent upon the acceptance of another patent but that is too much. The protection, or monopoly, which is given to the first patent stops where the monopoly of the second begins.[139]

Recently in *Hazeltine Research Inc.* v. *Zenith Radio Corporation*,[140] the Seventh Circuit again reviewed Hazeltine's package licensing agreements. The record before the court, unlike the record in *Automatic Radio Manufacturing Co.* v. *Hazeltine Research, Inc., supra*, showed that Hazeltine coerced licensees into taking the package

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[135] 339 U.S. 827 (1950).
[136] 334 U.S. 131 (1948).
[137] 339 U.S. 831.
[138] 268 F.2d 769 (3d Cir., 1959), *cert. denied* 361 U.S. 902 (1959).
[139] *Id.* at 777.
[140] 388 F.2d 25 (7th Cir., 1967), *cert. granted on other grounds* 391 U.S. 933 (1968).

license and would not license less than all of its patents except at disproportionately higher royalty rates. The Seventh Circuit therefore held Hazeltine's mandatory package licensing to constitute patent misuse. Absent coercion, however, it is not improper to include more than one patent in a license. As the Tenth Circuit stated in *McCullough Tool Co.* v. *Well Surveys, Inc.*:

> [I]n order to constitute a misuse, there must be an element of coercion, such as where there has been a request by a prospective licensee for a license under less than all of the patents and a refusal by the licensor to grant a license.[141]

A patentee should therefore never attempt to coerce a licensee into accepting a license which includes more patents than the licensee actually wants. If any prospective licensee requests that the patentee exclude a particular patent from a license, the patentee should not refuse such a request. Moreover, a patentee cannot attempt to force a licensee to take a package by offering a lower royalty rate on the entire package than for one or more patents making up the package. For example, in *Hazeltine Research Inc.* v. *Zenith Radio Corp., supra,* Hazeltine offered Zenith a license under the following terms: (1) payment of $275,000 per year in royalties for use of nine color patents; (2) payment of $300,000 per year for all extant color patents; (3) payment of $310,00 for all extant and future color patents; or (4) payment of $200,000 for the package of all patents, color and monochrome, extant and future, at an annual maximum of $200,000. The court held that this was an obvious attempt to coerce Zenith into accepting the package and therefore affirmed a treble damage verdict in the amount of $150,000. The court, however, found that it had not been improper for Hazeltine to offer to license Zenith one patent for 50 percent, two patents for 80 percent or three or more patents for 100 percent of the cost of the entire package.

*Trademark Tie-Ins*

A patentee may desire that the licensee sell a patented invention under the trademark which the patentee uses when it sells the same product. In *Switzer Bros., Inc.* v. *Locklin*[142] the Seventh Circuit indicated, without clearly holding, that when a patentee conditions a patent license on the licensee's use of the patentee's trademark it is

[141] 343 F.2d 381, 408 (10th Cir. 1965); but see Rocform Corp. v. Acitelli-Standard Concrete Wall, Inc., 367 F.2d 678 (6th Cir. 1966).

[142] 297 F.2d 39 (7th Cir., 1961).

engaging in patent misuse. In that case, however, the requirement that the licensee use the patentee's trademark was interwoven with the requirement that the licensee purchase materials used to make the patented product from the patentee or from sources approved by the patentee, and the Seventh Circuit was therefore not squarely presented with the question of whether, absent other improper restrictions, a patentee could require a licensee to use the patentee's trademark. However, a court might well strike down such a compulsory trademark requirement. Even aside from the rationale of the patent tie-in cases, such a restriction could be held to have an unreasonable effect on competition since it prevents the licensee from establishing its own goodwill in the patented product and would assure the patentee a competitive advantage when the patent expires.

*Restrictions Barring the Licensee From Dealing in Competitive Products*

There is no doubt that any attempt by a patentee to prevent a licensee from dealing in products which are competitive with the licensed products violates the antitrust laws. The leading case in the field is *National Lockwasher Co.* v. *George K. Garrett Co.*[143] In that case the patentee issued licenses which prohibited its licensees from manufacturing any forms of spring washers other than those covered by the licensed patent. The Third Circuit held such a restriction to constitute misuse and stated, "The patentee in this case is . . . using its patent monopoly to suppress the manufacture of possible competing goods not covered by the patent. . . . A patentee's right does not extend to the use of the patent to purge the market of competing non-patented goods. . . ."[144]

*Restrictions on the Licensor*

As a general rule any provision in a licensing agreement which restricts the patentee's activities is likely to cause trouble. "While the patentee remains free to protect himself by restricting the licensee . . . [r]estraints upon competition for the benefit of the licensee are to be

[143] 137 F.2d 255 (3rd Cir. 1943).

[144] *Id.* at 256. See also McCullough v. Kammerer Corp., 166 F.2d 759 (9th Cir. 1948); Chamberlain v. Clark Bros., 96 F. Supp. 498 (S.D. Cal. 1951); Park-In Theatres v. Paramount-Richards Theatres, 90 F. Supp. 730 (D. Del. 1950) *aff'd per curiam* 185 F.2d 407 (3rd Cir., 1950); *cf.* United States v. United States Gypsum Co., 333 U.S. 364, 397 (1948).

measured not by the standards of the patent laws, but by the general rules governing the validity of competitive restrictions. . . ."[145] Thus, an agreement by the patentee giving the licensee a veto power in the selection of additional licensees violates the Sherman Act.[146] Similarly, any license provision which requires that the licensee's approval be given before the patentee can bring an infringement suit also violates the Sherman Act.[147] A license provision which restricts the patentee's right to make, use or sell products or processes which are competitive with licensed patents or which restricts the patentee's right to engage in research to develop competitive devices also violates the Sherman Act.[148] By the same token, any restriction on the rate of royalties a patentee may charge other licensees is also unlawful. In *Pfotzer* v. *Aqua Systems, Inc.*,[149] the patentee granted a license which provided that it would sell its patented systems and patented parts to others at a figure not less than 15 percent higher than the price which the licensee paid. In addition, the patentee agreed to divide its profits on said sales with the licensee. The court struck down both of these restrictions since they obviously had the effect of restricting competition.[150]

On the other hand, certain restrictions upon the patentee have been upheld as lawful. Thus, a most favored clause, i.e., a provision that the licensee will get the advantage of any more favorable royalty provisions or other terms which the patentee may grant to any subsequent licensee, is permissible. Similarly, it is permissible for a patentee to agree to bring suits against infringers of the licensed patents, to save the licensee harmless from infringement suits by third parties and to defend such infringement suits for the licensee.[151]

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[145] United States v. Crown Zellerbach Corp., 141 F. Supp. 118, 127 (N.D. Ill., 1956).

[146] McCullough Tool Co. v. Well Surveys, Inc., 343 F.2d 381 (10th Cir., 1965), *cert. denied* 383 U.S. 933 (1966); Mason City Tent & Awning Co. v. Clapper, 144 F. Supp. 754 (W.D. Mo. 1956); United States v. Besser Manufacturing Co., 96 F. Supp. 304 (E.D. Mich., 1951) *aff'd* 343 U.S. 444 (1952); United States v. Krasnov, 143 F. Supp. 184 (E.D. Pa. 1956), *aff'd* 355 U.S. 5 (1957).

[147] United States v. Krasnov, 143 F. Supp. 184 (E.D. Pa. 1956), *aff'd* 355 U.S. 5 (1957).

[148] McCullough v. Kammerer Corp., 166 F.2d 759 (9th Cir. 1948). Although the cases have indicated that a patentee may not grant a non-exclusive licensee the right to sue for infringement, e.g., United States v. Krasnow, *supra,* Mason City Tent & Awning Co. v. Clapper, 144 F. Supp. 754 (W.D. Mo. 1956), no case had ever held that such a provision in a license agreement would in itself violate the antitrust laws.

[149] 162 F.2d 779 (2d Cir. 1947).

[150] But compare Standard Oil Co. (Indiana) v. United States, 283 U.S. 163 (1931).

[151] Virtue v. Creamery Package Manufacturing Co., 227 U.S. 8 (1913); United

### Restrictions on Purchasers

A patentee may attempt to sell a patented article but still retain some control over the manner in which the purchaser may use or resell the article. However, such attempts have been uniformly condemned by the Supreme Court.[152] The rationale of these decisions was set forth in the early case of *Adams* v. *Burke*, where the Court made clear that

> . . . in the essential nature of things, when the patentee . . . sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use . . . it is open to the use of the purchaser without further restriction on account of the monopoly of the patentees.[153]

Following this rationale the Court has held that a patentee could not restrict the territory in which a purchaser could use a patented article,[154] or limit the price at which the purchaser could resell the patented article.[155] Similarly, although in *General Talking Pictures*[156] the Supreme Court did not pass on the issue of whether a purchaser without notice of the field-of-use limitation is bound by an attempted use restriction, the Tenth Circuit in a subsequent decision held that a patentee could not recover for infringement for violation of a use restriction after the patented article had been sold.[157]

In sum, once a patentee receives his full reward through the sale of a patented article he loses all control over what the seller may do with the article. As the Court stated in *Univis, supra*:

> . . . sale of [the patented article] exhausts the monopoly in that article and the patentee may not thereafter, by virtue of his patent, control the use or disposition of the article. *Bloomer* v. *McQuewan* 14 How (US) 539, 549, 550; *Adams* v. *Burke* 17 Wall (US) 453; *Hobbie* v. *Jennison*, 149 U.S. 355 . . . . Our decisions have uniformly recognized that the purpose of the patent law is fulfilled with respect to any particular article when the patentee has received his reward for the use of his invention by the sale of the article, and that once

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States v. L. D. Caulk Co., 126 F. Supp. 693 (D. Del. 1954).

[152] United States v. Univis Lens Co., 316 U.S. 241 (1942); Bauer & Cie v. O'Donnell, 229 U.S. 1 (1913); Keeler v. Standard Folding Bed Co., 157 U.S. 659 (1895); Hobbie v. Jennison, 149 U.S. 355 (1893); Adams v. Burke, 84 U.S. (17 Wall.) 453 (1873); Bloomer v. McQuewan, 55 U.S. (14 How) 539 (1852).

[153] Adams v. Burke, 84 U.S. (17 Wall.) 453 (1873).

[154] Keeler v. Standard Folding Bed Co., 157 U.S. 659 (1895); Hobbie v. Jennison, 149 U.S. 355 (1893).

[155] United States v. Univis Lens Co., 316 U.S. 241 (1942); Ethyl Gasoline Corp. v. United States, 309 U.S. 436 (1940); Bauer & Cie v. O'Donnell, 229 U.S. 1 (1913).

[156] General Talking Pictures Corp. v. Western Electric Corp., 305 U.S. 124 (1938).

[157] Cream Top Bottle Corp. v. Bailes, 62 F.2d 714 (10th Cir. 1933).

> that purpose is realized the patent law affords no basis for restraining the use and enjoyment of the thing sold. *Adams* v. *Burke, supra . . .; Keeler* v. *Standard Folding Bed Co.,* 157 U.S. 659; *Motion Picture Patents Co.* v. *Universal Film Mfg. Co.,* 243 U.S. 502 . . . . The first vending of any article manufactured under a patent puts the article beyond the reach of the monopoly which that patent confers.[158]

## Patent Pooling and Cross-Licensing Agreements

A cross-license is an agreement whereby all or part of the consideration for licensing of a patent is the license of another patent. When multiple rights of several owners are involved, an arrangement for the interchange of such rights is called a patent pool. The term "patent pool" has been used to include situations ranging from elaborate patent holding and research arrangements to a simple cross-license. Indeed, "patent pool" has been defined to comprise all modes of cooperation between patent holders with different interests. The method of effecting the cooperation may include cross-licenses, the creation of a patent holding company or the assignment of patents to a single party.[159]

By and large, the courts have not developed a per se approach to cross-licensing and patent pools. As Donald F. Turner stated in *Patents, Antitrust and Innovation, supra* at page 156:

> Let me turn now, again necessarily briefly, to cross-licensing and patent pools. . . . Here too existing case law is spotty and many of the problems have not been fully thought out. But the general nature of the antitrust approach is reasonably clear. *This is not an area for enthusiastic embracing of per se rules. Cross-licensing and patent pools can often convey substantial benefit at little or no anticompetitive cost.* You will recall that one of the adverse effects of the patent system is that the existence of patents in certain areas may inhibit research and development that might otherwise take place by impeding the use of potential new developments or by increasing the cost of solving given problems. A cross-licensing or pooling arrangement removes such inhibitions. There are other advantages. Cross-licensing and pooling enable each participant to put out a product incorporating the improvements of all of the parties to the agreement; in short, at any particular point in time, such arrangements put better products in the hands of buyers. And such agreements, of course, are often necessary to eliminate blocking situations. (Emphasis added.)

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[158] 316 U.S. 250-51.

[159] Oppenheim & Weston, *Federal Antitrust Laws* (3d ed. 1968), pp. 683-684; Wood, "The Validity Under the Antitrust Laws of Cooperative Arrangements Among Patent Owners," 28 *University of Pittsburgh Law Review,* 221, 223 (1946).

However, a patentee holding a large share of the market is in a vulnerable position with respect to pooling or cross-licensing arrangements. For example, in *United States* v. *General Instrument Corp.*,[160] the district court condemned a pooling arrangement used to fix prices and otherwise control a market, but also strongly indicated that a pooling arrangement by parties controlling over 50 percent of the market was unlawful in and of itself.

The Supreme Court has recognized that interchanges of patents may, in some circumstances, be necessary and may have beneficial competitive effects. In *Standard Oil Co. (Indiana)* v. *United States*,[161] the Court was confronted with a situation where the owners of patents relating to gasoline cracking patents had given cross-notices of infringement to each other and one infringement suit had actually been filed. In order to resolve these disputes the patent owners entered into a series of agreements whereby each company was released from liability for past infringement, each acquired the right to use each other's patents, each was authorized to issue licenses to other concerns under a fixed royalty, and each was to receive a share of the royalties obtained from others. However, no restriction on the parties' right to license others and no restrictions on quantity, territory, price or conditions of sale were imposed. The Court upheld this pooling arrangement and stated:

> Where there are legitimately conflicting claims or threatened interferences, a settlement by agreement, rather than litigation, is not precluded by the [Sherman] act . . . . An interchange of patent rights and a division of royalties according to the value attributed by the parties to their respective patent claims are frequently necessary if technical advancement is not to be blocked by threatened litigation.[162]

While noting that the defendants accounted for only 26 percent of the total production of cracked gasoline the Court warned:

> If combining patent owners effectively dominate an industry, the power to fix and maintain royalties is tantamount to the power to fix prices . . . . [A]n agreement for cross licensing and division of royalties violates the [Sherman] act . . . when used to effect a monopoly, or to fix prices, or to impose otherwise an unreasonable restraint upon interstate commerce.[163]

The Supreme Court has subsequently struck down pooling arrange-

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[160] 87 F. Supp. 157 (D.N.J. 1949).

[161] 283 U.S. 163 (1931).

[162] *Id.* at 171. See also International Manufacturing Co. v. Landon, Inc., 336 F.2d 723 (9th Cir., 1964); Binks Manufacturing Co. v. Ransburg Electro-Coating Corp., 281 F.2d 252 (7th Cir., 1960); *cert. den.*, 364 U.S. 926 (1961).

[163] 283 U.S. 174-75.

ments which resulted in the regimentation and elimination of competition in an industry, which limited each party to the pooling arrangement to a particular field of use or to a particular territory, or which resulted in price-fixing.[164] Similarly, the Court has also held that a cross-licensing arrangement entered into for the purpose of excluding a competitor from the market violates the Sherman Act.[165] The exchange of exclusive cross-licenses is particularly dangerous since a cross-license which limits or restricts either party's right to grant further licenses also runs afoul of the antitrust laws.[166]

Although, as has been pointed out at pages 91-94, *supra,* grantback provisions have been upheld when used by a non-dominant firm or when only one or few patents were involved, a provision requiring cross-licensees to license each other under all of their future patents is dangerous. Thus, in *United States* v. *National Lead Co.*[167] the district court in striking down an international cartel in the titanium industry which was accomplished through a series of cross-licenses emphasized the fact that "[t]he agreements applied to patents not yet issued and to inventions not yet imagined. . . . They embraced acknowledgment of patent validity with respect to patents not yet issued, nor applied for, and concerning inventions not yet conceived."[168]

One further factor which has been taken into account in weighing the legality of pooling arrangements is the extent to which the parties have actually granted licenses. Thus, in *Standard Oil Co. (Indiana)* v. *United States, supra,* at 424, the Supreme Court in upholding the pooling arrangement there under attack, stated, "If the available advantages are open on reasonable terms to all manufacturers desiring to participate, such interchange may promote competition." Similarly, in upholding a pooling arrangement in *Baker-Cammack Hosiery Mills*

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[164] Hartford-Empire Co. v. United States, 323 U.S. 386 (1945); United States v. Line Material, 333 U.S. 287, 305 (1948); United States v. New Wrinkle, 342 U.S. 371 (1952); United States v. Imperial Chemical Industries, Ltd., 100 F. Supp. 504 (S.D.N.Y. 1951); United States v. National Lead Co., 63 F. Supp. 513 (S.D.N.Y. 1945), *aff'd* 332 U.S. 319 (1947).

[165] United States v. Singer Manufacturing Co., 374 U.S. 174 (1963).

[166] McCullough Tool Co. v. Well Surveys, Inc., 343 F.2d 381 (10th Cir. 1965), *cert. denied* 383 U.S. 933 (1966); Mason City Tent & Awning Co. v. Clapper, 144 F. Supp. 754 (W. D. Mo. 1956); United States v. Krasnov, 143 F. Supp. 184 (E.D. Pa. 1956), *aff'd* 355 U.S. 5 (1957); United States v. Besser Manufacturing Corp., 96 F. Supp. 304 (E.D. Mich. 1951).

[167] 63 F. Supp. 513 (S.D.N.Y. 1945); *aff'd* 332 U.S. 319 (1947).

[168] *Id.* at 524; *cf.* United States v. General Electric Co., 80 F. Supp. 989, 1004 (S.D.N.Y. 1948); but compare Cutter Laboratories v. Lyophile-Cryochem Corp. 179 F.2d 80, 93 (9th Cir. 1949); United States v. Birdsboro Steel Foundry & Machine Co., 139 F. Supp. 244, 261 (W.D. Pa. 1956); United States v. DuPont, 118 F. Supp. 41, 225 (D. Del. 1953), *aff'd on other grounds* 351 U.S. 377 (1956).

v. *Davis Co.*,[169] the Fourth Circuit took into consideration that "the patent privileges have been offered freely to all manufacturers and it is to their obvious advantage to possess the right to incorporate in their out-put all the modern improvements. . . ."[170]

The Antitrust Division views in this regard were given by Donald Turner as follows:

> A formal agreement among major competitors to pool their patent assets, coupled with a refusal to admit others, raises the kind of problem involved in *Associated Press* v. *United States* [326 U.S. 1 (1945)]. I suggest that antitrust issues are not escaped merely because there is no formal agreement as such. Suppose, for example, that each of the two leading producers of a particular kind of mechanical equipment has an important patent on a different component; that each gives the other a non-exclusive license to make and use his superior component; and that consequently the two producers are both able to incorporate both significant improvements. Suppose further that neither will give a license to any of the smaller producers; and that in consequence the small companies' collective market share declines materially. I am not prepared to admit that this situation is beyond antitrust reach, nor do I think it should be left alone simply because the immediate consequence of the agreement is to give purchasers a product incorporating two improved components rather than just one.[171]

## Infringement Notices and Suits

Section 287 of the Patent Act[172] provides that in the absence of appropriate marking on the patented article "no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement. . . ." Section 271 (d) [173] provides that:

> No patent owner otherwise entitled to relief for infringement . . . shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having . . . sought to enforce his patent rights against infringement or contributory infringement.

Nevertheless the courts have held that bad faith infringement notices, threats to institute infringement suits and the institution of such suits constitute evidence of monopolization and attempted monopolization. The distinction between proper and improper activities directed at infringers is whether the patentee in good faith had reason to believe

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169 181 F.2d 550 (4th Cir. 1950).

170 *Id.* at 570.

171 Turner, "Patents, Antitrust and Innovation," *supra* note 21, at 157.

172 35 U.S.C. § 287.

173 35 U.S.C. § 271 (d).

that its patents were actually being infringed.[174]

For example, in *United States* v. *Besser Manufacturing Co., supra,* Besser had threatened to bring infringement suits without even examining the alleged infringing machines to see whether or not they actually infringed. The district court condemned such warnings and stated, at page 312:

> It further appears that there were two or three instances where suit was threatened involving machines that agents of defendants had never even seen. The threat of a law suit for infringement should be bona fide and one asserting the exclusive right granted by the United States should not indiscriminately abuse that right. At least an examination should be made of the charged machine and then a law suit if necessary or at least negotiations started.

Not only must the patentee be satisfied the actual infringement has occurred but it may not threaten to institute an infringement suit unless it intends to carry out its threat and institute such a suit.[175]

Finally, even if otherwise proper, the bringing of infringement suits can be held to be evidence of monopolization if it is found to be part of a scheme to acquire all of the important patents in the field and drive out all actual or potential competitors.[176] As the Tenth Circuit stated in *Kobe*:

> [A]lthough Kobe believed some of its patents were infringed, the real purpose of the infringement action and the incidental activities of Kobe's representatives was to further the existing monopoly and to eliminate Dempsey as a competitor. *The infringement action and the related activities, of course, in themselves were not unlawful, and standing alone would not be sufficient to sustain a claim for damages which they may have caused, but when considered with the entire monopolistic scheme* which preceded them we think, as the trial court did, that *they may be considered as having been done to give effect to the unlawful scheme.* . . . The result of Kobe's infringement action, its verbal and written statements to the trade, was disastrous to the defendants. There was almost a complete boycott of their products. To hold that there was no liability for damages caused by

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[174] Compare Coats Loaders & Stackers, Inc. v. Henderson, 233 F.2d 915 (6th Cir. 1956); Cole v. Hughes Tool Co., 215 F.2d 924 (10th Cir. 1954); Sperry Products, Inc., v. Aluminum Co. of America, 171 F. Supp. 901 (N.D. Ohio 1959), *aff'd on other grounds,* 285 F.2d 911 (6th Cir. 1960), *cert. denied,* 368 U.S. 890 (1961) with Kobe Inc. v. Dempsey Pump Co., 198 F.2d 416 (10th Cir. 1952); United States v. Besser Manufacturing Co., 96 F. Supp. 304 (E.D. Mich. 1951), *aff'd* 343 U.S. 444 (1952).

[175] United States v. Besser Manufacturing Co., 96 F. Supp. 304 (E.D. Mich. 1951), *aff'd* 343 U.S. 444 (1952); Maytag Co. v. Meadows Manufacturing Co., 35 F.2d 403 (7th Cir. 1929); Sun-Maid Raisin Growers of California v. Avis, 25 F.2d 303 (N.D. Ill. 1928); Racine Paper Goods Co. v. Dittgen, 171 Fed. 631 (7th Cir., 1909).

[176] Kobe, Inc. v. Dempsey Pump Co., 198 F.2d 416 (10th Cir. 1952), *cert. denied* 344 U.S. 837; *cf.* Cole v. Hughes Tool Co., 215 F.2d 924 (10th Cir. 1954).

> this conduct, though lawful in itself, would permit a monopolizer to smother every potential competitor with litigation before it had an opportunity to be otherwise caught in its tentacles and leave the competitor without a remedy. (Emphasis added.)[177]

Accordingly, a patentee should not send out an infringement notice or bring an infringement suit unless it has first examined the item thought to be infringing its patents and has, in good faith, determined that it actually does infringe. Similarly, it should not send out threats to bring an infringement suit unless it has determined that infringement actually exists and that it will institute a suit unless the infringement ceases.

Finally, in making the decision of whether or not to bring an infringement action, it should also be borne in mind that if the patentee is found to be engaging in patent misuse, it would be barred from enforcing the patents involved in such misuse until such time as it had purged itself.[178] Moreover, although a licensee is normally estopped from challenging the validity of the patents under which he takes a license, he is not so estopped when the licensing agreement contains an antitrust violation.[179]

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[177] 198 F.2d 425.

[178] See, e.g., Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488 (1942).

[179] Sola Electric Co. v. Jefferson Electric Co., 317 U.S. 173 (1942); Nachman Spring-Filled Corp. v. Kay Mfg. Co., 139 F.2d 781 (2d Cir. 1943).

# FORUM

Although the primary purpose of *IDEA* is to communicate the research work of the Institute, it also serves as an educational vehicle for the exchange of informed opinion. The positions taken by the authors of papers and notes in this section are not necessarily those of the Institute. It is hoped that the material published in this section will stimulate researchers to undertake further study of the issues.

# The PCT Situation in 1969

LEONARD J. ROBBINS*

## BACKGROUND

BIRPI DOCUMENT PCT/III/31 IS A CONDENSED REPORT of what was said by the various representatives at the Geneva meeting in December 1968. There was again no real consideration of basic principles—only another laborious section-by-section approach full of unresolved conflicting viewpoints and spur-of-the-moment comments.

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**Editor's Note:** *As we were going to press, we learned that the two papers on PCT by Leonard J. Robbins published in Volume 11, No. 4 and Volume 12, Nos. 2-3 of* IDEA *will be reprinted in Swedish in the* Industriell Teknik. *We were also informed that Mr. Robbins, at the suggestion of the editor of that publication, had prepared a supplement. Since the supplement will be printed in Swedish and, probably, will not be available for several months, we are presenting this English version for the information of our readers.*

However, it seems fairly safe to predict that the next development during 1969 will be the publication of a somewhat altered version of the 1968 BIRPI Plan and that the most vigorous efforts will then be made to halt further discussion and freeze this version as the final text. In this connection, the concluding statement by the Swedish representative, referred to in the last paragraph (264) of the report, is very significant:

> At the end of the discussion, the Representative of Sweden expressed the urgent desire to keep the differences between the present, well-balanced and carefully thought-out BIRPI Draft and any future draft to the indispensable minimum. In all cases of doubt, the present BIRPI Draft should be maintained.

The majority of government representatives, who are termed "experts," apparently consider they have a crisis situation on their hands and that PCT is the only road to salvation. On the other hand patent attorneys in many countries, who have analyzed the Treaty provisions in the light of their practical experience, are apprehensive that PCT cannot achieve its stated objectives and will only plunge their clients into expensive complications. These clients—inventors, executives and research directors from all fields of industry—may be impatient with the legal aspects but are naturally attracted by the terms of salesmanship, particularly "simplification" and "reduction of expense," so widely used by the proponents of PCT.

In view of its importance for the future of worldwide industrial development, this is a situation that cries out for impartial review before any irreversible steps are taken. However, the government "experts" have succeeded in almost eliminating all opposition.

The representatives of non-governmental international organizations represent a consensus and can hardly speak for more than a lowest common denominator of national viewpoints: those actually present at Geneva were clearly not chosen to rock the boat. There is a bland assumption that the government "experts" reflect the thinking and interests of their own nationals; however it is well known that in a number of countries professional organizations and patent law associations are highly critical of PCT whereas their own government representatives are ready to approve the treaty *in toto*. The voices of outsiders, however well qualified by experience, are largely ignored: in fact serious criticism tends to be regarded as reactionary or based on self-interest.

A sort of vested interest in PCT has grown up, based on several years of admittedly arduous work by the BIRPI officials involved and the mountainous paper product. PCT now has a momentum of its

own, with large mass and high forward velocity. This mass at present comprises 65 Treaty sections and 87 rules. Therefore this is no ordinary Treaty, but in actuality is equivalent to a supranational patent law.

The legislators of any countries that propose to ratify PCT should be aware of what varied commitments to the future they would be making in this complex technical-legal-economic field.

There is of course always the lurking suspicion that PCT is the harbinger of the "universal patent" recommended as the "ultimate goal" in the Report of the President's Commission on the U.S. Patent System. However, a hard look at the present industrial activities of the highly industrialized nations as compared with those of the small nations with underdeveloped or agricultural economies, seems to indicate that a universal patent system as a practical operation is far off over the horizon, however attractive this concept may be to certain very large international corporations. Also, since a universal patent system would mean the end of national systems, it is not likely that the government representatives, mostly patent office officials, are consumed by a death wish.

It therefore appears appropriate at the present moment to ignore universality, and to consider how PCT, in the elaborate form that has now evolved, would operate in the world as it is now organized. The principal areas in which it is alleged that PCT would provide positive improvements are searching, foreign filing, costs, and publication. These can be examined more or less independently of each other and of the precise Treaty text.

## Searching

Everyone agrees that searching the same inventive idea in numerous patent offices, having widely varying documentation, is inefficient. The ideal solution would be a single computerized central search organization having all relevant technical literature available. But to set this up would require true international cooperation and would be enormously expensive. There has been much talk, but now, in the year 1969, no real practical steps whatever have been taken in this direction. On the contrary, BIRPI proposes to decentralize searching and use five "Searching Authorities"—the U.S., German, Russian and Japanese patent offices and IIB at the Hague. While efforts undoubtedly would be made to encourage conformity of procedures, common sense indicates that the output of such disparate offices would never be

the same. Therefore all national patent offices with high examining standards and desiring to maintain quality, would still have to make their own supplementary searches after receipt of the PCT search report.

It has been stated that the BIRPI Plan is just a temporary compromise in order to get started and that all imperfections can gradually be eliminated. But these five offices would undoubtedly have to expand their searching staff to handle international applications, and as years passed there would be a strong bureaucratic tendency to maintain the *status quo.*

Searching under the BIRPI Plan covers only published material and does not even mention the built-in problem of the substantial number of conflicting copending patent applications in existence at any given moment in any given country. If these are to be dealt with, under the various requirements of national patent laws in numerous countries, to avoid issuing conflicting patents, then each interested national patent office would still have to discover them. Only a completely efficient central search organization with information continuously fed in concerning all applications when filed in all countries could even partially solve this problem.

The proponents of Chapter II of the BIRPI Plan desire not only searching but also examination for patentability by the five selected Searching Authorities and possibly others. But this so-called International Preliminary Examination involves the same problem of different standards. However great the effort, consistent results would not be obtained. In the U.S. for example, it now appears that most of the proposals by the President's Commission will not be adopted, and any changes in the present U.S. patent law will be relatively minor. Since other countries are hardly likely to switch over to the unique U.S. system, substantive harmonization is becoming a mirage rather than a possibility. Consequently, those high standard countries previously referred to would also have to conduct a further examination of their own—or else issue patents based on at least five different theories of patentability.

Thus, in the absence of an effective single search organization and a single worldwide standard of patentability, it is not apparent how the searching and examination procedures of the BIRPI Plan would constitute any effective simplication or real economy for the major sophisticated examination countries. In fact the chosen searching and examination offices might well have to incur the substantial expense of expanding their facilities in order to handle international applications. Possibly some small examination countries might find search and

patentability reports helpful if they were prepared to upgrade their own procedures. However the large number of pure registration countries are not likely to be interested in burdening their patent office files with search and examination reports which could always be obtained directly from a patentee at any time in case of actual need for litigation or other purposes.

## Foreign Filing

The postponement of foreign filing contemplated under the BIRPI Plan actually extends the 12 months priority period of the International Convention to 20 months—by the legal fiction of virtual rather than actual Convention filing. This is admirable in intent, since it would provide time to evaluate the search report in relation to the original application before foreign filing in other countries. Fully anticipated inventions would presumably not be filed abroad, so that money would not be wasted. However, complete anticipation of the Chinese copy type is rare, and normally foreign cases would be filed in amended form, thus leading to simpler examination and stronger patents.

Under present existing conditions, an applicant proceeding under the International Convention within 12 months from his earliest filing date may or may not have obtained a patent office search or have made his own search within the Convention year. To that extent the extra eight months of the BIRPI Plan is beneficial. However he still has complete freedom, right up to the end of the 12 months, to amend, combine or add appropriate non-Convention subject matter when preparing foreign applications. It is true that the BIRPI Plan contemplates combining national applications into a single international application, but apparently without addition of any partial priority non-Convention subject matter. There appear to be no provisions for combining international applications to effectuate foreign filing. For an important percentage of cases, possibly up to 10 percent, this takes away much of the benefit of the 20-month extension of the priority period. The ideal reaction to search reports on a number of related international applications might well be combination, but in the absence of any procedure, an applicant is no better off than under present conditions.

But still more important is that the BIRPI office in Geneva would effect actual foreign filing in designated patent offices on behalf of an applicant. This is a most serious objection, affecting the basic attorney-client relationship. In most foreign filing programs, particularly if

covering a large number of countries, there are almost always last minute changes and decisions. According to the BIRPI Plan, an applicant would lose control and initiative at this vital and critical stage.

It is absolutely essential, if a dangerous and retrograde submission of the private to the public sector is to be prevented, that an applicant should be entitled to file his own foreign Convention application directly in foreign patent offices—uncombined, combined, with or without appropriate non-priority new matter—without any intervention of BIRPI officials. At any rate, an applicant should have the option to maintain personal control rather than being forced to use BIRPI.

## Costs

It has been noted above that under the BIRPI Plan the useless filing of fully anticipated foreign applications could be avoided. This is indeed a meritorious forward step. But for those foreign applications that *are* filed, after due consideration of a search report, all the normal national patent office expenses would be incurred, together with the fees and service charges of local patent attorneys. Possibly prosecution expenses would sometimes be reduced, but on the countervailing side there would be the fees and service charges involved in carrying out the various PCT procedures.

As yet, there is no indication whatever concerning the amounts of the proposed PCT fees or exactly how they will be collected. It is essential that the third BIRPI draft should precisely designate all fees to be collected under the various Treaty sections and rules. However, even if the fees should be minor or even nominal, it seems clear that apart from the above exception of non-filing, any full use of PCT might well involve an applicant in *more* expense in the long run to obtain a group of corresponding foreign patents than under present conditions.

The PCT procedures might also involve additional work for national patent offices for which they would probably charge fees. If actually the BIRPI fees are high, then an applicant would clearly run into very heavy expenses. On the other hand, substantial subsidies for BIRPI would be necessary from the participating countries if the fees were maintained on a nominal basis.

More candor and less euphoria is desirable on the hard core question of the cost of PCT to applicants, to national patent offices, and to member countries.

## Publication

Probably everyone would agree that information concerning multiple foreign patents covering the same invention should be readily available in a central location, to avoid the tedious and expensive labor of searching individual patent office records. But this does not mean that BIRPI should be authorized to publish many thousands of patent applications a year, in competition with the existing publications of a large number of national patent offices. BIRPI might become one of the largest printers and publishers in the world. As years went by, there would be a fantastic storage and waste problem, since many of its publications would never be purchased by anyone.

All that is necessary is for BIRPI to publish brief identifying particulars and a summary of all Convention applications after an appropriate period, and a list of the countries involved. Any one interested could then request copies from the individual national patent offices.

## Conclusion

The PCT proposal fails to grasp the prickly and expensive nettle of a single efficient search organization available to all countries. Until this is achieved, there can be no international cooperation in this field of a long term and progressive nature.

At the present time, and for the indefinite future pending solution of the search problem, the promised advantages of PCT for applicants and patent offices, which are important but certainly not of any revolutionary character, could be achieved without any bureaucratic enlargement of BIRPI by a simple new Special Arrangement under the International Convention, dealing with the following items:

(1) Designation of various national patent offices as "searching authorities"—not necessarily only the four contemplated by PCT—and including IIB;

(2) Procedure whereby any national applicant who indicates a desire for foreign filing, can (on payment of a fee) obtain a search report in less than a year from such a searching authority;

(3) Procedure whereby on the basis of presentation of such a search

report, he can file foreign applications in other national patent offices in any suitable amended or combined form up to 20 months from the original filing date, with benefit of priority;

(4) A requirement that information on such group of corresponding applications would be sent to BIRPI at an appropriate time for publication of coordination particulars.

The FICPI-II Plan, as an alternative to the BIRPI Plan, contemplates such a Special Arrangement.

## SELECTED TRANSLATIONS

From time to time, in this section, we make available to our readers translations of original, distinctive or outstanding articles, reports or notes relating to The PTC Research Institute's fields of interest.

# Foreign Patent Applications and Patents*

THOMAS RITSCHER

SUMMARY

COSTS OF FOREIGN PATENTS cannot be predicted on the basis of fixed costs alone. Variable costs are discussed on an empirical basis. Empirical values for the actual main cost factors: filing, procedure and maintenance are discussed. Criteria of selecting countries and cases for foreign filing are given: basic features of foreign patenting are outlined. Finally, some suggestions are made to decrease costs and to improve the effectiveness.

* A paper delivered by the author, a Zurich patent attorney, at the Management Center Europe, Brussels, Seminar on Management of Intellectual Property, in the Fall of 1968.

## INTRODUCTION

PATENT PEOPLE ARE RELUCTANT to talk about money. This is understandable because today's cost facts tend to contradict yesterday's cost experiences. But this has not helped the art of budgeting in patent matters.

Let me try to specify the budgeting problems: First, you have the costs of the "basic" patent operation, or, in other words, the total amount of money spent for finding the inventions, preparing and prosecuting the resulting patent applications, and advising management on general and specific patent problems. Secondly, you have the foreign patent operation. This would include the entire costs of selecting and preparing the applications for foreign filing, prosecution of the applications and maintenance of the patents. Finally, there are the costs of patent litigation.

Now, in practice, few corporations seem to budgetize patent litigation costs. In most instances, this is a reasonable attitude because the limits of the litigation budget, short of bankruptcy, would need to be so flexible that the very term "budget" is not appropriate at all since litigation simply is no routine matter.

However, both the basic or domestic and foreign patent operation tend to become routine and, hence, budgeting items, as soon as the trickle of incidental inventions grows to a stream once the R&D function operates continuously. It seems that cost consciousness is strongest in the foreign patent operation. After all, it is not a matter of life and death whether or not you have full patent protection for each and every one of your company's inventions in, say, Togo (no offense intended, but this country happens to be at the very bottom of BIRPI's patent statistics[1] with a total of three patent applications in 1966).

Cost consciousness seems to be a fairly strong motive for budgeting. To help those people who have to draft the budget, as well as those at the dirty end of the stick, I will try to specify the problems and suggest some solutions. There is a strong chance that your own experiences will be quite different from mine and I wonder whether we still could reach similar conclusions. If this is not so, I hope at least to incite discussion. I shall develop some cost models which, if reasonably correct, would represent the costs of a "normal" foreign patent. From there, I shall proceed to discuss old and new criteria of selection and conclude with some tried recipes of how to.

[1] *Industrial Property,* Monthly Review of the United International Bureaux for the Protection of Intellectual Property, BIRPI (December 1967).

## Empirical Patent Costs

As a start for developing the cost models let me give you an example reported by P. A. Gorman, President of Western Electric, in March 1968:

> Western Electric handles all the foreign patenting for all the Bell System in addition to our own domestic patenting. Currently, the Bell System has almost 9000 patents in the United States, and more than 10,000 in foreign countries.
>
> Now, using just one year as an example, this involves some 2500 patent applications. Of these, about 70 percent are duplicates filed in patent offices outside the United States. It takes an organization of 18 fulltime professionals in our company to oversee this foreign operation. We also hire the services of patent agents in foreign countries to submit and prosecute our cases in full compliance with local practice. The cost of this foreign patent operation is now running close to $2 million a year.[2]

If my interpretation of this statement is correct, Western Electric and the Bell System would file about 1750 foreign patent applications in a year and spend an average of $1150 per foreign patent. But how could this figure be interpreted? Does it cover maintenance costs?

Another example is taken from FICPI Plan, a patent reform project presented by the International Federation of Patent Agents as an alternative to the PCT.[3] A Danish toy manufacturing company had invented a toy building set now known as LEGO. On the basis of their domestic application they filed foreign applications at total costs of $12,000-$15,000 (in 1959). I don't know the exact number of countries where the LEGO cases actually have been filed, but I would assume that they were filed in about 40 to 50 countries. This would give an average cost figure of from $240-$380 for filing costs per application in 1958.

John R. Shipman[4] reports a further cost figure:

> Another consideration is that filing applications costs money. For example, it may cost approximately $300-$700 to file an average application in one foreign country. Fees of this size must be multiplied by the number of countries the company is interested in and the number of applications it may seek. In addition, maintaining patents when issued requires payment of annual taxes, as indicated earlier.

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[2] Quoted from a report by E. J. Brenner, U.S. Commissioner of Patents, *International Commerce* (August 5, 1968).

[3] Fédération Internationale des Ingénieurs-Conseils en Propriété Industrielle (FICPI), International Filing of Convention Applications, "The FICPI-PLAN," A Proposal for an Alternative to the PCT.

[4] John R. Shipman, "International Patent Planning," in *Harvard Business Review* (March/April 1967).

Now let me interpret these figures according to my own experience: The LEGO costs clearly are simple filing costs. This does not include any costs in preparing the first (domestic) application nor any procedural (examination) costs but covers only the multiple conversions of the basic application into the foreign cases, i.e., translation, formal amendment, agency fees and government filing fees. Since the technical subject matter of these LEGO cases is relatively simple, we could accept the LEGO filing figures as the lower limit for the range of filing costs.

I do not think, however, that we should use the Western Electric figures, or the upper limit of Shipman's range, to obtain a typical upper limit for the filing costs. They seem too high even if we consider the much more complicated subject matter of Western Electric's "average" foreign cases as compared to LEGO. Since Mr. Gorman refers to the cost of "foreign patent operation," we can, therefore, safely assume that costs other than mere filing are included. Mr. Shipman distinguishes between filing costs and maintenance costs. But what about the costs of procedure, i.e. the tedious process of getting an application allowed in those countries where the application is examined prior to grant of the patent?

In the registration countries, such as Belgium, you have essentially no procedural costs at all. In the examining countries, on the other hand, the procedure frequently is more expensive than mere filing and the procedural costs can total several times the filing costs. In extreme cases, e.g. complicated oppositions and appeals or U.S. interference procedure, the costs after filing and up to grant of the patent may be in the order of litigation costs.

Let us assume that the total procedural costs are in the same range as the filing costs. This seems reasonable, at least as a first approximation, if you have a fairly broad distribution of filing countries, that is, if the "typical" application is not just filed in countries without examination. I have found that this assumption usually works out quite well and permits a sound cost estimate. With this assumption, the average foreign filing costs of Western Electric would be about half the amount discussed above, i.e. $580, and I think we can use this figure at the upper end of the range because of the above-average degree of technical sophistication of Western Electric's field of work. The first cost factor (average foreign filing costs per case and country) for the cost model then is a range of $240-$580. This is a fairly broad statement. If you want a more precise figure you might proceed as follows: Take the mean value of 410 of the range and multiply this with a factor between 0.5 and 1.5 from the following scale:

| Technical sophistication of the typical invention | Factor |
|---|---|
| Simple mechanical | 0.5 |
| Average mechanical | 0.75 |
| Complex mechanical or simple technical | 0.1 |
| Average technical | 1.25 |
| Complex technical | 1.5 |

Then multiply the resulting figure with a factor between 0.8 and 3 from the following scale:

| Number of typewritten pages of the typical base-applications (25 lines, 10 words per line) | Factor |
|---|---|
| 1-10 | 0.8 |
| 10-20 | 1.0 |
| 20-30 | 1.2 |
| 30-40 | 1.4 |
| 40-50 | 1.6 |
| 50-60 | 1.8 |
| 60-70 | 2.0 |
| 70-80 | 2.2 |
| 80-90 | 2.4 |
| 90-100 | 2.6 |

The figure obtained should be the approximate sum (in U.S. dollars) of your average foreign filing cost.

If you analyze your foreign filing dockets you might find additional or somewhat different factors and then get a better approximation. I certainly do not want to convey the impression that what I have presented is a fool-proof way of exactly calculating foreign filing costs. What I want to make clear is that an empirical approach to foreign patent costs is a must: The typical fixed and, therefore, predictable costs of foreign filing (government fee and local agency fee) are in the order of $100. This is less than half of the typical actual filing costs of simple and short applications and only about a fifth if most of your cases are complex and long so that the predominant costs of foreign filing are not predictable by other than empirical methods.

I have said that the average procedure costs, i.e. the costs after filing and up to grant, are in the same range as the filing costs which are the first cost factor. In other words, you can use the same figure for the second or procedure cost factor. A systematic evaluation of your actual procedure cost experience might lead to some correction factors, e.g., if most of your preferred countries for foreign filing have atypical procedure costs. However, if you use the same figure for the first and the second costs factor, this takes care of the fact that average

procedure costs tend to increase as the average foreign case becomes longer and more complex.

Finally, the third cost factor relates to the patent maintenance costs or annuities. You have to pay these annuities in all important filing countries except the USA and Canada. While these costs vary from country to country, they are essentially fixed and can be predicted. For the cost model, I shall assume that the average costs for maintaining a patent over its total theoretical life (including both annuities and term watching costs) are $700, and that the average life of a patent is about a third of its maximum theoretical life. Therefore, the third cost factor in a first approximation is an amount of $230.

Let me summarize the three cost factors of foreign patent operation and the model costs:

| Cost factor | Model-range |
|---|---|
| (1) Filing costs | $240-580 |
| (2) Procedure costs up to and including grant | $240-580 |
| (3) Maintenance costs (annuities) | $230 |
| *Average costs per foreign patent (cost model)* | $710-1390 |

So the empirical total costs of a patent in a *single* foreign country can be said to be in the range from $700 to $1400. If you want to calculate the price of worldwide foreign patent protection, all you have to do is multiply the numbers of the model by the number of countries having a national patent law, or of being capable of passing such a law. Passing and enforcing a law is an act of national sovereignty, and there are about 120 sovereign states at present. Then the model-price of a hypothetical universal patent protection of a single invention is $84,000-$168,000. In the next section, I shall try to bring this figure down to earth.

## Territorial Selection

First, we can eliminate those countries which have no patent law at all, such as Sudan, Thailand and Afghanistan. Then we can cancel the "confirmation"-countries like Nigeria, Kenya, Tanzania, Cambodia and Burma, because you can file in these countries only if you already have a patent in another specified country. But after this reduction, we are still faced with more than 100 potential filing countries.

I can suggest another and much more efficient criterion: the annual

patent statistics[5] of BIRPI. They give the number of patent applications per year in alphabetical order of countries. Now, if you regroup the countries according to the numbers of applications filed per year, you may be in for a surprise. More than 90 percent of all patent applications in 1966 were filed in only 20 countries (if we forget about the inventors' certificates in the Soviet Union in view of their problematic value as regards protection). I have summarized the rearranged statistics in a table:

Number of Patent Applications Filed in 1966

| | |
|---|---|
| More than 40,000: | USA, Japan, Germany (Federal Republic), France, United Kingdom |
| More than 20,000: | Italy, Canada |
| More than 10,000: | Switzerland, Netherlands, Sweden, Belgium, Australia, Austria |
| More than 5,000: | Czechoslovakia, South Africa, Brazil, Germany (Democratic Republic), Denmark, Mexico, Argentina, Poland, India, Norway |
| More than 1,000: | New Zealand, Finland, Hungary, Luxembourg, Jugoslavia, Greece, Israel, USSR (Patents), Rumania*, Venezuela, Portugal, Ireland, Pakistan, Colombia, Chile, Korea, Bulgaria* |

* Including inventors' certificates

The number of patent applications filed annually in a given country is quite informative and can be said to constitute the "relative patent importance" of this country. This number reflects such different characteristics as economic activity, degree of industrialization, effectiveness of the patent system and the legal apparatus, and stability. Aside from your specific commercial interests, this simple figure could be your most important single criterion for territorial selection.

In other words, you can usually get reasonable "worldwide" patent coverage at roughly a third ($28,000-$56,000) of the theoretical universal costs if you file only in the countries where more than 1000 applications are filed per year. If you go a step further and limit your foreign filings to countries where at least 10,000 patent applications are filed per year, the total patent costs would again be reduced to a third, i.e. be in the range from $9000-$20,000. Such costs would stand in a more reasonable relation to the general costs of development, market introduction and market protection, and also to the actual market advantages which you can normally expect to achieve with patents. Even the reduced "worldwide" patent coverage, however, is

[5] *Op. cit. supra* note 1.

the exception rather than the rule. Quite a few corporations feel that patent costs are defensive or protective investments, that is, protection of the investments in R&D, in production, and in market introduction, rather than investments for direct profit.

In any case, the question of where to file is a recurring headache of any routine patent operation and here the simple criteria of the relative patent importance of the countries won't be sufficient. So my next topic is that of additional criteria.

Now, I feel that the marketing point of view has not yet been sufficiently discussed in patent literature. Let me start with the novelty concept: Novelty in patents means technical novelty. But is this true for marketing? Take as an example a patentable petroleum distillation process which increases the yield of a desired fraction by, say, 10 percent. It would be technically new or else you could not patent it. Let us assume that this process can be operated with conventional or slightly modified plant equipment. I would not consider this process "novel" in a marketing sense because we would have a defined and well-known market which is limited by the existing or predictable petroleum refining industry. With such "old" marketing items a reasonable selection of foreign filings does not seem to present much of a problem. In our petroleum example you could limit your foreign filings to countries which have such an industry in a significant size or can reasonably be expected to have such an industry soon.

Now take a new market item. It would have to be technically new as well if it were to present a problem of foreign patent filing. Here, you don't have an established but rather a potential market and all you can get are educated market guesses. Literature is full of drastic examples of failures in market prediction but the marketing point of view still is the only alternative to seat-of-the-pants decisions.

The marketing data can be particularly informative if you consider an old experience from licensing: Analyses of license agreements in a plurality of countries with the same license subject tend to show that a rather minor fraction of the license agreements yields a fairly large or even a predominant part of the total license income of the licensor. This uneven distribution of efficiency can be observed daily and in quite different fields. It can be used as a valuable help for selecting foreign patent applications, separately or in connection with other factors. From the market data you can set up an additive or multiplicative entity of the calculated sales or production figures for each country. Now you make a diagram with the entities as adjacent vertical bars on a horizontal line, each bar corresponding to one

country. Then you arrange the bars in an approximation to the Gauss curve of statistical distribution. Now you can successively eliminate the countries in the marginal areas on both sides of the curve until a relatively small number of countries remains in the central part of the curve, yet still represents a large percentage, e.g. 80 percent of the expected sales or production volume.

When you have to decide foreign patent filing you may get valuable additional information when you look at the structure which your company can use for directly or indirectly influencing a given foreign market. Examples of such structures are subsidiaries or common ventures with a production or sales organization, or existing license agreements. In addition, you might consider the international filing spectrum of competing firms. If you look at the patent laws of the potential countries for foreign filing you may find that they restrict your choice. Let me just mention the more important pitfalls of some national patent laws:

(1) The exclusion or limitation of patentability for some types of inventions such as pharmaceuticals, nutrients, computer programs and chemical substances;
(2) Different definitions of novelty and prior use;
(3) Working requirements.

Additional points which I will just mention are

(4) The question of product or process protection and the consequences for policing infringement;
(5) Taxation of license income and
(6) Antitrust problems.

## Technique of Foreign Patent Operation

You will see that the number of first filings per year of a company largely determines their type of patent operation, both at home and abroad. A company with incidental inventions, as well as the individual inventor, uses an independent patent attorney frequently called a "house patent attorney." A patent department does not pay when you have less than about ten first filings per year. I shall call this first type of patent operation the "small company" even though it may be an individual. The small company has neither a patent department nor a formal R&D department.

Let me use the term "medium company" for a firm that has more than ten and up to about a hundred first filings per year. The medium company has a patent department and does systematic R&D in a specialized area. This company may have both domestic and foreign license interests.

Finally, there is the "large company." It will have a carefully managed R&D program and turn out more than a hundred first filings per year. The patent department can be centralized or not, and may include a separate foreign patent department. The budget for all patent costs (domestic, foreign, annuities, but no litigation) typically would be in the range of about 3 to 5 percent of the R&D costs.

Here I use the terms small, medium and large company only to define the type of patent operation. There are, of course, companies which commercially are large while their patent operation is that of a medium company. Some research or patent development companies, while economically small, may be said to be medium or large companies if you look at their patent operation. As you know, the patent propensity is quite different in the various branches of industry.

*Foreign Representation*

The patent size of a company determines the very first feature of foreign patent operation, that is, selection and use of a local representative. Most patent laws require that the foreign applicant appoints a local representative, or that he has at least a mailing address in that country. Where the law does not specify the qualifications of the representative, or where a mailing address is sufficient, you could, in essence, deal with the Patent Office directly. The use of such "mailbox" representatives, however, seems to be the exception. In critical cases you will need experienced local counsel and this may be difficult if no qualified representative is used for routine work.

The small company does not normally have direct contact with the foreign representative. Their house patent attorney supervises the work of the foreign representative. The medium company may have direct contact with the local representative. In the lower range, e.g. with 10 to 50 first filings per year, the tendency to use the house attorney for supervision of the foreign patent operation is stronger. The large company usually is in direct contact with the local representative. It may have foreign operations or subsidiaries which either have their own patent department or can serve as a mailing address. Sometimes, they use central representatives for groups of countries.

The quality of your foreign patent operation will, to a large extent, depend upon the quality of your foreign representatives. This quality can be judged according to the following criteria:

(1) Material competence (capability to work in your technical field);
(2) Linguistic competence (capability to explain the local procedure in your language);
(3) Legal competence (knowledge of local practice, law and court rulings);
(4) Integrity.

The handling skill can be judged as follows:

(5) Speedy handling;
(6) Reliable term watching;
(7) Capability to operate in the absence of, or with incomplete, instructions;
(8) Reasonable billing (favorable ratio of quality to costs).

You should be sure about the quality of your foreign representative. Technical difficulties can be overcome by personal contact and constructive critique. If this fails, look for another representative.

*The Quality of the Application*

The next part of my check-list refers to the quality of the cases for foreign filing. After all, even the best representative can only camouflage basic defects of a patent application.

What exactly is a good patent application and a good patent? Now, a patent application is a description of an invention. From this purely technical point of view an invention is good if it is both novel and distinctive. You may question this statement since patent laws do not explicitly require "distinctiveness," but think about the problem of claiming. You simply cannot draft a good claim for an invention which lacks this property and by good claiming I mean a full structural or process definition of the invention and not a functional program.

If you have a good (novel and distinctive) invention, you can reduce it to a good (clear) description. While some formal requirements differ from country to country, a well written specification will stand up everywhere. Of course, your foreign representative should be able

to correct formal shortcomings, but you will have avoidable costs. A basic defect of your first or domestic application, however, will haunt you in all your foreign cases. Since foreign filing normally comes up with the more important inventions, a thorough check of the basic specification prior to foreign filing is a must, as is a thorough novelty search. A single foreign patent is more expensive than a normal novelty search.

Frequently, the small company and the individual inventor do not understand why they should pay for a search, not to speak of the costs of continuous full documentation. This can put their house patent attorney in a very poor position because he is responsible for both the quality of the application and the advice to the company whether or not they should spend money on foreign filing, and he can deliver neither of the two without full knowledge of the art.

The medium company should have full documentation in its R&D field, or at least have easy access to such documentation. Search and documentation, in fact, is the minimum function of its patent department (which tends to have a continuous personnel problem), and it is better to farm out the drafting of patent specification and related procedural work than to neglect search and documentation.

Large companies usually have full documentation, even in computerized form. You will find that a good deal of today's outstanding patent work comes from this category. It is my personal impression that patent operations including foreign patents function best where the authority to decide is delegated as far as possible. You cannot expect sound decisions in patent operations from somebody who has no intimate knowledge of patents, and unless you have seen how patents can die, rot or fade, you won't get the "feel" of patents which is necessary for judging the strength or weakness of an actual or potential patent position. With large companies the main danger is that due to lack of relevant information and/or lack of delegated authority too many weak cases are filed and that the patent operation becomes completely defensive.

(1) Make sure that the basic (first or domestic) application, which is to become the basis for the foreign cases, has been thoroughly searched and includes distinctive novelty; try to consider the development of the invention after filing of the basic case;

(2) Look at the formal quality of the basic application and keep in mind that it must be translated into several foreign languages; technical jargon is not translatable; critical numeral values in the application should appear more than once;

(3) Make sure that the criteria for foreign filing are considered; use a check-list and keep written records of the reasons which led to the filing or no-filing decision;
(4) Avoid double work: use only one but a first-class translation for countries with the same language;
(5) Give your foreign representative sufficient time to prepare and discuss the case;
(6) Evaluate your foreign patent portfolio at least annually to avoid maintenance costs for obsolete patents.

# REVIEWS AND ANNOTATIONS

## Recently Published or Reported Material Relating to the Research Institute's Work

Allen, David B., "International Trademark Protection—A Progress Report," *The Trademark Reporter,* Vol. 58, No. 11 (November 1968), p. 775.

"I do not propose to go into the progression of events in detail. Instead it may be of more interest to review the basic structure of the Madrid Agreement which will be the subject of possible revision as a result of the studies to be undertaken by the 1969 Working Group. Following this I will try to indicate what we believe is the potential significance of this new effort for United States trademark owners who have an interest in improved systems for international trademark protection."

Banner, D. W., "Recent Proposal to Change the United States Patent System," *Ohio State Law Journal,* Vol. 29 (Fall 1968), p. 873.

Bardehle, Heinz, "The German 'Preliminary Law,'" *Journal of the Patent Office Society,* Vol. 50, No. 5 (May 1968), p. 283.

"The Preliminary Law provides for a number of significant changes, particularly in the patent granting procedure. Hence, the practitioner should consider as early as possible how the new regulations could affect every day practice. No time should be wasted because the new regulations are exerting their influence now, although the law first takes effect in part on January 1, and completely on October 1, 1968. Section II will deal in detail with this aspect.

"This article will cover those changes of the Patent Law which are most significant for its practical application."

Beausang, Michael F., Jr., "Tax Consequences of Termination Provisions of Exclusive License Agreements," *Journal of the Patent Office Society,* Vol. 50, No. 11 (November 1968), p. 717.

"It is seen that the substance of the termination provisions of an exclusive license agreement is of serious importance, and often controls the tax treatment afforded the royalties received by the licensor or transferor. The retention of valuable rights, as the unconditional right of the licensor or transferor to terminate at will, or upon giving a certain number of months notice makes

capital gain treatment unavailable, and provisions of this type are to be avoided. Also, provisions allowing termination before the expiration of the patents covered by the agreement are inadvisable. However, from the licensor's view point, reasonable conditions subsequent in the usual situations offer sufficient protection of his rights and do not prompt unfavorable tax treatment. Consistent with the intent and meaning of Sections 1221, 1231 and 1235 of the Code, condemned is the power to terminate at the whim of the transferor or licensor, as distinguished from the power to terminate upon certain prescribed conditions over which he has no control.

"However, when representing a licensee, broad and uncontrolled provisions for termination by him are seen to have no effect upon the tax consequences as respects the licensor."

"Can Copyright Law Respond to the New Technology? A Panel" (Julius J. Marke, John Schulman, Benjamin Kaplan, Verner Clapp, Abe A. Goldman, George Frost), *Law Library Journal,* Vol. 61 (November 1968), p. 387.

"CATV and Copyright Liability: the Final Decision," *Connecticut Law Review,* Vol. 1 (December 1968), p. 401.

Collison, Bert A., "The Registration Problems Arising from Exclusive Distributor Agreements," *The Trademark Reporter,* Vol. 58, No. 11 (November 1968), p. 790.

"My topic deals with trademark registration problems encountered by both the foreign manufacturer and the exclusive distributor here in the United States. While the law is well-settled on certain aspects of this problem, there is still uncertainty in other areas, so that problems arising from distributorship agreements or lack of agreements continue to be recurring in the Patent Office.

"Since the Trademark Act does not define 'ownership' of a trademark, but does provide that only the 'owner' may register, most of the problems arise in the Patent Office in interpreting the intent of the parties. This may result from a lack of understanding as to what the Patent Office requires to establish 'ownership' for the purpose of registration.

"I will attempt to outline the development of the decisional law dealing with distributorship agreements and the effect of such agreements on the ownership of the mark to which these agreements apply."

"Copyright—CATV and the Scope of 'Performance,'" *Ohio State Law Journal,* Vol. 29 (Fall 1968), p. 1038.

"Copyright—Protection Denied to Verbal Expression of Simple Subject Matter," *Michigan Law Review,* Vol. 67 (November 1968), p. 167.

"Copyright—Telecommunication—CATV Carriage of Copyrighted Material Does Not Constitute Infringement," *Vanderbilt Law Review,* Vol. 21 (October 1968), p. 854.

Crossland, H. J., "Rise and Fall of Fair Use: the Protection of Literary Materials against Copyright Infringement by New and Developing Media," *South Carolina Law Review,* Vol. 20 (1968), p. 153.

"Current Tests of Similarity in Infringement Proceedings," *William and Mary Law Review,* Vol. 10 (Fall 1968), p. 186.

Dannay, R., "Guide to the Drafting and Negotiating of Book Publication Contracts," *Bulletin of the Copyright Society of the U.S.A.,* Vol. 15 (June 1968), p. 295.

"Date of Invention: the Varying Standards of Proof," *Georgetown Law Journal,* Vol. 57 (October 1968), p. 162.

De Jonghe, Thomas, "Process and Product Claims—Allowability in One Patent," *Journal of the Patent Office Society,* Vol. 50, No. 10 (October 1968), p. 659.

"This article is primarily concerned with the allowability in one patent of claims to a product and claims to a process for *using* the new product where the use of the product is essentially the only new condition in the process. The law with respect to the allowability of claims to a process for *making* the product, in addition to claims for the product itself, in the same patent appears to be fairly well settled. However, because the basis for deciding the question of allowability of claims to a process for *making* a product in addition to a claim restricted to the product itself is pertinent at least peripherally to the main question here being considered, the development of the law on that question will be briefly reviewed first."

Derenberg, W. J., "Twenty-first Year of Administration of the Lanham Trademark Act of 1946," *The Trademark Reporter,* Vol. 58, No. 9 (September 1968), p. 609.

"Dissipation of Patent Misuse," *Wisconsin Law Review* (1968), p. 918.

"Estoppel to Deny Validity—a Slender Reed," *New York University Intramural Law Review,* Vol. 23 (May 1968), p. 237.

Fey, D., "Name of the Game: Trademarks," *Practical Lawyer,* Vol. 14 (October 1968), p. 81.

Fisher, D. E., "From Secrecy to Plagiarism," *University of Queensland Law Journal,* Vol. 6 (August 1968), p. 60.

Flocks, Karl W. and Neimark, Sheridan, "Is There a Viable Doctrine of Non-Statutory Late Claiming as a Defense in Patent Litigation?" *Journal of the Patent Office Society,* Vol. 50, No. 10 (October 1968), p. 676.

"The Patent Act of 1952, under Sections 102 and 103 sets forth the conditions for patentability, which conditions include the statutory 'bars.' Section 120 provides for late claims giving to them the benefit of the date of the original disclosure so as to set the time for the running of statutory 'bars.'

"Section 252 sets forth the conditions for the existence of an adverse right as against a valid claim in a reissue patent, which adverse right is in the nature of a license and a defense against infringement, not validity.

"The Patent Act of 1952 sets up the conditions for late claiming. It is the opinion of the authors that there are no other discrete set of conditions for late claiming as to warrant the existence of a non-statutory 'doctrine' of late claiming."

Goller, Gilbert, "Competing, Complementary and Blocking Patents: Their Role in Determining Antitrust Violations in the Areas of Cross-Licensing, Patent Pooling and Package Licensing," *Journal of the Patent Office Society,* Vol. 50, No. 11 (November 1968), p. 723.

"The relationship that patents bear to each other is a result of the interplay of the processes, apparatus, and products they cover. Patents can be competing, blocking, complementary or a combination thereof, depending on the facts involved. Many of the leading cases in the areas of cross-licensing, patent pooling and package licensing have discussed the different types of interrelationships. However, while many authorities, in discussing these cases, pay lip service to the policies enunciated in them, criticism of the holding in *Standard Oil Co. (Indiana)* v. *United States,* a landmark decision in the area of cross-licensing and patent pooling, and some court decisions indicate that a different approach to these areas based on the types of patents involved, might be useful.

"The purpose of this paper is to re-evaluate the cases in these areas, placing particular emphasis on the types of patents involved and to point out the fallacies that exist in the authoritative discussions of these cases."

Greenbaum, Arthur J., "Trademarks Attacked," *The Trademark Reporter,* Vol. 58, No. 7 (July 1968), p. 443.

"Recent activities of the federal government are directly and indirectly challenging the trademark system. This challenge is evidenced by the increased interest and action of governmental officials in the area of consumer protection. This paper will seek to demonstrate how this rise in 'consumerism' may be equated with a challenge to the trademark system."

Grundmann, H. E., "Patent Laws in New African States," *Journal of the Patent Office Society,* Vol. 50, No. 7 (July 1968), p. 486.

Holmes, M. C., "Check List for Foreign Licensing," *Business Law,* Vol. 24 (November 1968), p. 281.

"Intervening Rights under the Patent Act of 1952," *University of Pittsburgh Law Review,* Vol. 29 (June 1968), p. 734.

Joyce, Walter, "Challenges to the Trademark System," *The Trademark Reporter,* Vol. 58, No. 7 (July 1968), p. 453.

"Audacious or not, it is time for interpreting what the protectionists in government perceive when they see a trademark, and what they would like to do about trademarks."

Kauper, T. E., "Cease and Desist: the History, Effect, and Scope of Clayton Act Orders of the Federal Trade Commission," *Michigan Law Review,* Vol. 66 (April 1968), p. 1095.

Kragen, Adrian A., "Tax Aspects of Trademarks (and Patents)," *The Trademark Reporter,* Vol. 58, No. 11 (November 1968), p. 810.

"Although the trademark and trade name area offers no startling new developments, I should like to discuss briefly two phases or aspects of the problem of trademarks and trade names. The first is a discussion of some of the problems incident to litigation in the trademark field, with some side discussion of the patent problem, and a brief discussion of the tax problems of abandonment of trademarks and trade names."

Lipscomb, E. B. III, "Package Patent Licensing: A Practical Analysis," *Mississippi Law Journal,* Vol. 39 (May 1968), p. 351.

Lorenzo, Alfred P., "The Inventive Entity and the Law of Double Patenting," *Journal of the Patent Office Society,* Vol. 50, No. 8 (August 1968), p. 519.

"It is the purpose of this article to review the law in this area and also to advance the proposal that double patenting principles should apply, and the prior art type rejection should be precluded, not only when the inventors are identical, i.e., when the inventive entities are the same, but also as between com-

monly assigned co-pending applications having one or more inventors in common. As support for this proposition, it is submitted that the realities of present day 'group research'—an activity in which a steadily increasing proportion of the total number of patent applications filed find their origin—compel the conclusion that this is a much more fair and logical way to resolve the problem than is the rigidly technical approach which now prevails."

Lunsford, Julius R., Jr., "Trademarks and Unfair Competition: Need for Uniform State Laws," *The Trademark Reporter,* Vol. 58, No. 2 (February 1968), p. 77.

"Enactment of the Uniform Deceptive Trade Practices Act is a must for those states desiring to provide commercial law adequate to meet the demands of their business community. The Model Trademark Act provides for registration and protection of trademarks, but does not provide a remedy for other types of commercial piracy not directly involving the misuse of one's trademarks, such as disparagement by a competitor, or unfair advertising and pricing policies. It might be said that the Uniform Deceptive Trade Practices Act takes over where the Model Trademark Act ends. It also permits action by a non-competitor or even by a member of the consumer public, regardless of proof of actual damage or actual confusion or misunderstanding, or even intent to deceive. Likelihood of damage is all that is required."

Mahon, John J., Jr., "Trade Secrets and Patents Compared," *Journal of the Patent Office Society,* Vol. 50, No. 8 (August 1968), p. 536.

"It is deemed necessary to reexamine trade secrets and accurately define the nature of the protection afforded for one principal reason: the proposed change in the United States patent statutes. Both the President's Commission and the Patent Reform Bill of 1967 call for compulsory publication, prior to allowance, of pending patent applications 18 to 24 months after the earliest effective filing date. Under this proposed law, an invention will enter the public domain and the inventor will remain unsure of whether he has obtained patent protection. If, after prosecution is completed, his claims are not allowed, he is dealt a double blow and in effect left without legal protection for his idea, no matter how financially advantageous it may be. He cannot fall back on trade secret protection as is possible under present law since an absolute prerequisite for this remedy is that the idea be secret in fact and not generally available to the public. . . .

"Other reasons for a serious

consideration of trade secrets are the somewhat high rate of patent invalidity found in court decisions and the fact that under present law, in the absence of successful patent prosecution, trade secret protection is the only alternative method of gaining a monopoly on the idea."

Marmorek, Ernest F., "The Inventor's Common-Law Rights Today," *Journal of the Patent Office Society,* Vol. 50, No. 6 (June 1968), p. 369.

"What are the common-law rights currently available to the American inventor? Broadly stated, they are: the right to keep his invention secret; the right to disclose his invention; the right to make, use and sell the devices based on his invention; and the right to contract with others for the commercial exploitation of his invention. These rights are today classified generally under the collective term of 'trade secrets,' although this term also includes items which have nothing to do with invention. . . .

". . . As the discussion here, however, is concerned only with the present common-law rights of the inventor, it will deal primarily with the first type of problem namely, the difficulties encountered by the inventor who wishes to exploit his invention."

McDonnell, Patricia M., "A New Approach to Mechanized Information Retrieval in the U. S. Patent Office," *Journal of the Patent Office Society,* Vol. 50, No. 10 (October 1968), p. 651.

"Reclassification of the patents in Class 167 has been effected by preparation of a conventional manual classification search system supplemented by a nonconventional coordinate index system. Upon consideration of the fact that the aspect of chemical structure is common to all three types of searches while utility is significant in only a major portion of them, it was decided that the primary basis for development of the classification schedule would be the chemical structure of the disclosed and claimed compositions; the supplementary coordinate index system would provide for searches relating to the pharmacological and other biological functions or utilities."

McMurray, Raymond D., "Key Points in a Trademark Policy—Trademark Fundamentals," *The Trademark Reporter,* Vol. 58, No. 7 (July 1968), p. 484.

"So, at the federal level you have a choice based on circumstances as to whether or not to register. Your rights in the trademark are not substantially affected by not registering. You can use registration as a search tool, but it seems to me that the choice should depend on the type of mark and the circumstances."

Melville, L., "Protection of Know-how," *New Law Journal,* Vol. 118 (October 3, 1968), p. 924.

Mitches, P. T., "Trademark Expungement under Canadian Law," *The Trademark Reporter,* Vol. 58, No. 8 (August 1968), p. 521.

Moffitt, Roy B., "Is a First-To-File Patent System Constitutional?" *Journal of the Patent Office Society,* Vol. 50, No. 11 (November 1968), p. 754.

". . . Filing date rather than priority of invention would be the test as to whom a patent should be granted on patentable subject matter. The question discussed in this paper is whether Congress may enact such a rule under the authority of Article I, Section 8, Clause 8 of the United States Constitution.

. . .

"Three basic areas were explored in reaching the conclusion that section 102 of the Patent Reform bill is constitutional:

"(1) The text of the constitutional authority and its history;

"(2) Patent statutory provisions, past and present, which have not been constitutionally challenged; and

"(3) A recent Supreme Court decision relating to an area in which the Congress may legislate in patent matters."

Moffitt, Roy B., "Reduction of Patent Litigation Costs by Patent Office Involvement," *Journal of the Patent Office Society,* Vol. 50, No. 7 (July 1968), p. 431.

Moffitt, Roy B., "Systems Using Patents as Prior Art," *Journal of the Patent Office Society,* Vol. 50, No. 9 (September 1968), p. 579.

Moskowitz, Samuel, "Pleading and Practice Before the Trademark Trial and Appeal Board," *The Trademark Reporter,* Vol. 58, No. 2 (February 1968), p. 92.

"For the purpose of this article, the author will merely discuss matters concerning the preparation and filing of an answer to a complaint (notice of opposition or a petition for cancellation). . . ."

Nimmer, M. B., "New Technology and the Law of Copyright—Reprography and Computers." Foreword. *U.C.L.A. Law Review,* Vol. 15 (April 1968), p. 931.

"Notice of Patent Infringement: Navigating a Legal Symplegades," *George Washington Law Review,* Vol. 37 (October 1968), p. 184.

O'Brien, Robert D., "Why Have a Trademark Policy?" *The Trademark Reporter,* Vol. 58, No. 7 (July 1968), p. 458.

"If the trademark is misused so that the good will associated with the trademark is tarnished, it will be the corporation which will suffer. History shows many

examples where product sales have suffered as a result of the loss of good will in the market place. When it becomes necessary to alter a trademark or to change an advertising campaign, the result is usually loss of market position. Such a possibility breeds fear in the minds of all marketing men. Every time a product has a trademark applied to it and the product is introduced into the market place, the reputation of the company goes along with them. The trademark means origin of the goods. Thus, each new product introduction not only exposes the financial position of the seller to risk, but also the very reputation of the seller. Every time an advertising man embarks on a new campaign using the corporation's trademarks, he can damage or enhance the corporate image."

Patch, R. J., "Arrangement of Madrid for the International Registration of Trademarks," *Journal of the Patent Office Society,* Vol. 50, No. 9 (September 1968), p. 603.

"Patents, Fraud and the Antitrust Laws," *George Washington Law Review,* Vol. 37 (October 1968), p. 168.

Pretnar, S., "Letter from Yugoslavia," *The Trademark Reporter,* Vol. 58, No. 6 (June 1968), p. 388.

Prinslow, R. W., "How Management Implements the Trademark Policy," *The Trademark Reporter,* Vol. 58, No. 10 (October 1968), p. 713.

"Private Label Distribution: Lessening Competition under the Robinson-Patman Act," *University of Chicago Law Review,* Vol. 35 (Spring 1968), p. 529.

Quesenberry, W. O., "Patent Cooperation Treaty: A Start Toward Modernization of a Nineteenth-Century System," *Journal of the Patent Office Society,* Vol. 50, No. 8 (August 1968), p. 509.

Rattigan, Robert T. "Trademark: Its Impact on Marketing-Visual Communications," *The Trademark Reporter,* Vol. 58, No. 7 (July 1968), p. 477.

"News media have recently carried many press releases describing new trademark programs for major companies. Most of them are much the same, describing in flowing terminology the modernity of the new symbol, which reflects 'progressivism,' 'dynamism,' etc. At the risk of sounding heretical to the design profession, most of these releases are sheer nonsense! Thumbnail presentations such as these actually serve to confuse rather than to clarify. Just what is a trademark, and what does it have to do with these presentations?"

"Re-examination of the Problem of Non-obviousness and Patent Validity," *Gonzaga Law Review,* Vol. 4 (Fall 1968), p. 65.

Ringer, B. A., "Role of the United States in International Copyright —Past, Present, and Future," *Georgetown Law Journal,* Vol. 56 (June 1968), p. 1050.

Roch, William C., "Prior Knowledge Compared with Prior Invention as a Statutory Bar," *Journal of the Patent Office Society,* Vol. 50, No. 6 (June 1968), p. 409.

"The proposed revision to the patent laws of the United States, and particularly 35 U.S.C. 102 (a) and (g), raises the question of whether the defense of patent invalidity by reason of prior private knowledge would be limited under the proposed revision."

"Role of the Register of Copyrights in the Registration Process: A Critical Appraisal of Certain Exclusionary Regulations," *University of Pennsylvania Law Review,* Vol. 116 (June 1968), p. 1380.

Ross, Robert, "Corporate Communication and the Trademark," *The Trademark Reporter,* Vol. 58, No. 7 (July 1968), p. 469.

"The focus will rest on a few simple assumptions. The most important of these is that the value of the trademark rests largely on the sustained behavior of the company that owns it. When I say 'value' I mean communication value. In this connection I will speak to the elements of a successful corporate image as cardiac in origin and not merely cosmetic.

"I will explore the notion that awareness of a mark, while desirable, is not nearly so significant as the attitudes of the public to the company owning it. You'll discover that I don't think it helps you to stick a legal mark on everything in sight if your company is widely perceived as a real blackguard in business.

"The next assumption we shall examine rests on the premise that the evolution of the mark in the contemporary American marketing arena is worth one more look. I shall try to show that there are at least two significant new elements at work and that they are profoundly changing the communication effectiveness of the mark. One of these new elements is the conglomerate. The other, the winds of social change now blowing so boisterously across the land."

"Rules Defining the Use of Trade Terms in Patent Applications," *William and Mary Law Review,* Vol. 9 (Summer 1968), p. 1104.

Schwartz, Stanley D., "Package Licensing in the United Kingdom," *Journal of the Patent Office Soci-*

*ety,* Vol. 50, No. 6 (June 1968), p. 357.

"The practice of licensing several patents in a 'package' or 'group' in one license agreement for one royalty has been the subject of several recent court decisions and articles in the United States. While the subject of package licensing in the United States has been the subject of much attention, little attention has been paid to package licensing in the United Kingdom. It is the object of this paper to analyze the current status of the package licensing laws of the United Kingdom in view of several recent decisions and to discuss their impact on the use of packages of patents by the potential licensor."

Sullivan, Francis J., "Is Arbitration Suitable for Trademark Problems?" *The Trademark Reporter,* Vol. 58, No. 11 (November 1968), p. 782.

"It is not my intention to argue either in support of or against arbitration insofar as trademark disputes are concerned, but merely to review those situations which may lend themselves to arbitration. In passing, I suggest that many of us, either intentionally or otherwise, have committed ourselves in the past to arbitration. I am referring to contracts, such as trademark or patent licensing agreements, where we have included the standard arbitration clause. I have prepared contracts which include the standard arbitration clause and, conversely, I have recommended the execution by clients of contracts prepared by others that did include the standard arbitration clause. When I speak of arbitration I am not necessarily limiting myself to an arbitration proceeding which is held in accordance with the Rules of the American Arbitration Association."

Sussman, J. J., "Copyright Publication, the Motion Picture Distributor and the Copyright Revision Bill," *Bulletin of the Copyright Society of the U.S.A.,* Vol. 15 (August 1968), p. 373.

Timberg, Sigmund, "Foreign Licensing Programs: Their Planning and Formulation," *Journal of the Patent Office Society,* Vol. 50, No. 8 (August 1968), p. 554.

"My purpose is to describe in short compass the way in which foreign licensing programs are formulated, the basic outlines of their operation and some of the problems involved. Before entering into the heart of this difficult subject, let me say that licensing programs for industrial property are only one method of developing foreign markets. The feasibility of such programs must be evaluated in the context of the other methods that are available to a firm which is producing goods in the United States, has

an active research and development or marketing program and has developed technological and merchandising expertise which might be helpful to and desired by foreign licensees."

Topol, A. J., "Patents and Hunting Licenses—Some Iconoclastic Comments and an Irreverent Solution," *American University Law Review,* Vol. 17 (June 1968), p. 424.

"Trademark Licensing: the Problem of Adequate Control," *Duke Law Journal,* 1968 (October), p. 875.

"Trade Secrets and Patents Compared," *Journal of the Patent Office Society,* Vol. 50, No. 8 (August 1968), p. 536.

"Unfair Competition in Intellectual Products in the Public Domain," *Cleveland-Marshall Law Review,* Vol. 18 (January 1969), p. 92.

"Unreduced Royalty Arrangements and Packaged Patents: An Improper Extension of the Patent Monopoly?" *Michigan Law Review,* Vol. 66 (April 1968), p. 1248.

"Use of a Trade Mark in Australia," *Sydney Law Review,* Vol. 6 (June 1968), p. 52.

"Uses, New Uses and Chemical Patents—a Proposal," *Wisconsin Law Review,* 1968, p. 901.

Voytech, C. F., "Case for the First-to-File Patent System," *American Bar Association Journal,* Vol. 54 (October 1968), p. 989.

Vukowich, William T., "Implied Warranties in Patent, Know-How and Technical Assistance Licensing Agreements," *Journal of the Patent Office Society,* Vol. 50, No. 5 (May 1968), p. 307.

"In this Comment the courts' considerations and conclusions as to what types of transactions should import warranties are used as the basis for determining whether and under what circumstances warranties should be implied in license agreements. Part I presents an analysis of cases in which licensed materials were alleged to be totally valueless or unsuited to the licensee's needs. Part II of the Comment discusses various obstacles to finding implied warranties in license agreements: For example, a license is technically not a sale, and courts have often asserted that a sale is a prerequisite to an implied warranty; also, because a licensee and licensor are frequently of equal skill and knowledge, special attention is given to the warranty requirements of inspection and reliance. Parts III, IV and V discuss the application of implied warranty law to patent know-how and technical assistance licenses. A short examination of damages which would be awarded for breach of license warranty is presented in Part VI."

Wands, H. Bowen, "Priority: Lanham Act or Model State Trademark Bill?" *The Trademark Reporter,* Vol. 58, No. 11 (November 1968), p. 801.

"There is a particular Section of this Bill which I believe should be deleted or modified; this is Section 8 (4) (e) which provides:

'The secretary of state shall cancel from the register:

(4) any registration concerning which a court of competent jurisdiction shall find

(e) *that the registered [trademark] mark is so similar, as to be likely to cause confusion or mistake or to deceive, to a [trademark] mark registered by another person in the United States Patent Office, prior to the date of the filing of the application for registration by the registrant hereunder, and not abandoned;* provided, however, that should the registrant prove that he is the owner of a concurrent registration of his [trademark] *mark* in the United States Patent Office covering an area including this state, the registration hereunder shall not be cancelled.' (Emphasis added.)"

Welch, J. E., "Patent Infringement in Government Procurement: GAO's Role," *William and Mary Law Review,* Vol. 10 (Fall 1968), p. 39.

Whitney, S. N., "Economics of the Ethical Drug Industry: A Reply to Critics," *Antitrust Bulletin,* Vol. 13 (Fall 1968), p. 803.

Wyman, A., "Chemical Compounds and 35 U.S.C. 103," *Journal of the Patent Office Society,* Vol. 50, No. 9 (September 1968), p. 586.

## Forrester Named 1968 Inventor of the Year

Professor Jay W. Forrester of M.I.T.'s Alfred Sloan School of Industrial Management and inventor of the Forrester Computer Memory, has been selected as the 1968 recipient of the Institute's Inventor of the Year Award. He will receive the award at a reception in his honor on April 17th at the Shoreham Hotel in Washington, D. C. The late Chester F. Carlson was named Inventor of the Year for 1964, Samuel Ruben for 1965, Gordon K. Teal for 1966, and Robert Adler for 1967.

Dr. Forrester's development of the core memory for large computer use is regarded as one of the most significant contributions to the rapid expansion of the computer industry. The demand for cores by the industry has exceeded all estimates and the numbers of cores now being made run into billions per year.

Born in Anselmo, Nebraska, Dr. Forrester received a B.S. degree in 1939 and an Honorary Doctor of Engineering in 1954 from the University of Nebraska. He received an M.S. degree from M.I.T. in 1945.

Dr. Forester first began his research as the director of the M.I.T. Digital Computer Laboratory when it was established in 1946. By 1949 it became clear that the bottleneck in computer design was the internal memory in which commands for the complex computer operations are stored. The idea came to Dr. Forrester of making a memory system with magnetic cores capable of bistable operation through the use of materials having nearly square hysteresis loops, and electrically exciting them by coincident currents. The use of cores for computer memories had been suggested earlier but they did not utilize the features of coincident-current excitation which solved the problem of selecting the desired core.

Professor Forrester is applying his earlier work in digital computers and servomechanisms to developing the field of "industrial dynamics," a new approach to the design of corporate policy based on the feedback system character of the industrial enterprise. His book, *Industrial Dynamics* (M.I.T. Press, 1961), was chosen by the McKinsey Foundation in 1961-62 as one of the five books most important to managers. In addition he has lectured and written numerous papers on digital computers, industrial management and economic behavior.

## Institute Studies Patent Licensing Limitations

A factual study of patent licensing limitations used by individuals, and by small and large companies, engaged in innovative activity has been launched by the Research Institute. Public knowledge of the business-life facts on this important subject is lacking, and this project, conducted by a non-profit, educational institution, offers the best prospect of balancing the public interest and private rights in this significant area of national policy.

The project leader is Professor S. Chesterfield Oppenheim, the Institute's Adviser on Research and formerly Professor of Law of the University of Michigan. Research Associate on this study is Mr. John C. Scott, of the law firm of Worth Rowley, Washington, D. C., and Consulting Editor, *Antitrust and Trade Regulation Report* of the Bureau of National Affairs.

This undertaking of the Institute will be an extended inquiry into the relative prevalence in industrial practice of the various possible types of license limitations and the circumstances and the reasons for their use. Included in the survey will be, for example, inquiry into such limitations as (a) first sale price, (b) territory, (c) quantity, (d) field of use, (e) customers, (f) package licenses, (g) cross-licenses and grant-backs.

Empirical data with respect to the matters listed above should lead to economic and legal analysis far more useful than the abstract and speculative information which has dominated the relevant literature. At the present time, there is practically a complete vacuum in this kind of factual information. Both judicial and management decision-making are preponderantly based on opinion. The case-by-case judicial decisions do not provide records or court opinions based on empirical data. On the contrary, each case is decided on its own facts; and, usually, there is no empirical information on the extent of use of a particular kind of license limitation and the various reasons which may justify its use.

This project is a part of the Institute's continuing investigations of licensing operations by American individuals and companies in the U. S. and abroad. The findings in the project, involving limitations in licenses granted under patents which result from innovative activity, should be most useful to professional men, business executives, government officials, and the larger public interested in technological and commercial innovation or concerned with trade practice.

## Monograph Published on Patent Revision Controversy

"Patent Revision Proposals: Incentives or Deterrents to Technological Innovation?" has just come off the press. It represents the most definitive study to date on the Report of the President's Commission on the Patent System and proposed legislation stemming therefrom.

Since the health and vigor of the U. S. patent system are of national concern, the Institute undertook this series of analytical studies to shed light on the effect of these proposals on the process of innovation: Would they encourage innovation? Would they discourage or slow it down? Or would the effects be negligible?

Proceeding from the premise that the basic purpose of the U. S. patent system is to encourage successful innovation in our economy, a team of 11 experienced researchers of the Institute canvassed a large number of the nation's inventors and innovators, The aim of the survey was to learn objectively how these innovators have conducted their affairs in the past and in what way they would conduct them differently under a patent system modified along the lines suggested by the Presidential Commission. The experience and opinions of foreign experts, under provisions similar to those recommended by the Commission, were also obtained.

Among the most significant findings were that the present United States system, which recognizes the first to invent rather than the first to file, encourages new art and its commercialization; that it promotes the development of the invention to a point of usefulness, and that it permits protection of the most significant embodiment of the invention. It decreases the filing of premature patent applications and thus reduces the Patent Office workload.

The monograph brings together a series of study reports on the patent revision proposals published in a number of issues of *IDEA*. Concluding comments on the reports are also given in the monograph. The following significant proposals of the Commission were singled out for special attention: (1) Recognizing the inventor who is first to file; (2) eliminating "interferences"; (3) including foreign knowledge, use and sale as prior art, (4) preliminary applications, and (5) deferred examination; (6) allowing the assignee to file an application, (7) early publication of pending applications, and (8) opposition and cancellation procedures; (9) instituting infringement liability before issuance of a patent; (10) changing the term of a patent to 20 years from filing; (11) inaugurating measures aimed at the eventual establishment of a universal patent, valid everywhere; (12) incorporating a provision for *in rem* invalidity; and (13) recommending against the patentability of computer programs.

The monograph is $4 per copy for Members of the Institute, and $5 for non-members, and can be obtained by writing to the Director of The PTC Research Institute of The George Washington University, Washington, D. C. 20006.

## Institute Celebrates 15th Anniversary

On February 11, 1969, the Institute celebrated its 15th birthday with a reception held at the Shoreham Hotel in Washington, D. C. in honor of its Patrons and Donor Members. Honored at the reception were Dean S. Edmonds of New York, Institute Patron, and Donor Members Chrysler Corporation, Ford Motor Company, General Motors Corporation, Monsanto Company, Shell Development Company, Universal Oil Products Company, and Westinghouse Electric Corporation.

S. Chesterfield Oppenheim, Adviser on Research for the Institute and one of its original founders, spoke briefly about its establishment. O. S. Colclough, Director Emeritus of the Institute and Chairman of its Advisory Council, presided at the event.

Individuals who have devoted their professional careers to the advancement of any one of the systems—patent, trademark or copyright—within the scope of the Institute's work and whom the Institute wishes to identify and accord academic recognition, have been invited to become Patrons. To evince support of the general purposes of the Institute, each Patron makes a gift of $10,000 or more in cash, securities, or other property interests.

Donor Members comprise those members that (directly or through corporate foundations) give annually $5,000 or more to the Institute. Donor Members have the option of requesting that a part of the sum be applied to one or more of the project areas listed in the Institute's program.

Plaques honoring Patrons and Donor Members will be appropriately inscribed and prominently displayed at the Institute's offices.

Announcement was also made at the Anniversary Reception of the creation of the Arthur M. Smith Commemorative Fund. Tom Arnold, Chairman of the National Council of Patent Law Associations, has asked the Associations, their members and other members of the Bench and Bar to participate financially in the establishment of the Fund in the Institute. Judge Smith's eminence as lawyer, teacher, and judge; his long association with the Institute; his public service; and his many warm and congenial relationships with the members of the Patent Bar, prompted the establishment of the Commemorative Fund. The Institute will apply the

Fund to research on the patent and trademark systems, to which Judge Smith was so devoted. Appropriate announcement will be made of the contributors thereto in the Institute's publications.

## Annual Public Conference Dates Announced

The Thirteenth Annual Public Conference will take place on Thursday, June 5th and Friday, June 6th, 1969, at the Shoreham Hotel, Washington, D. C.

The theme chosen for this year's Conference is *Technical Knowledge: Its Protection, Use and Flow.* The first session will cover Private Stakes in Invention; the second, Government-Private Issues; and the third, Impact of Economic, Technological, and Cultural Change.

The Conference, scheduled to run two full days, will be held in cooperation with the Federal Bar Association and the Bureau of National Affairs.

For further information on the Conference contact The PTC Research Institute, The George Washington University, Washington, D. C. 20006.

Following is an advance program schedule:

THURSDAY, JUNE 5

| | |
|---|---|
| 9:00 a.m. | Opening Remarks |
| 9:30 a.m. | I—*Private Stakes in Invention*<br>A—Executive Decision Making<br>B—Licensing Policy and Procedure<br>C—Cost of Enforcement of Industrial Property Rights |
| 12:30 p.m. | LUNCH |
| 2:00 p.m. | D—International Experience and Problems |
| 3:30 p.m. | II—*Government-Private Issues*<br>A—Current Antitrust-Unfair Competition Developments<br>1. Conglomerate Merger Industrial Property Problems<br>2. Antitrust-Unfair Competition Interaction (Trade Secrets, Franchises, etc.)<br>3. Empirical Study on Patent Licensing Limitations |
| 5:45 p.m. | Adjourn |
| 7:30 p.m. | Kettering Award Reception |
| 8:30 p.m. | Kettering Award Dinner<br>Presentation of Award and Acceptance Address |

FRIDAY, JUNE 6

9:00 a.m. B—Taxation of Industrial Property
C—Private and Public Roles in International Transactions

11:15 a.m. III—*Impact of Economic, Technological and Cultural Change*
A—Trademarks: Are They Valuable, and to Whom?

12:15 p.m. LUNCH

1:45 p.m. B—Crises in Communication
1. Loss of Trade Secrets
2. Recent CATV Decisions
3. Extensive Inhouse Duplication
4. Protection of Computer Programs

4:00 p.m. C—Toward International Arrangements

5:30 p.m. Adjourn

# Taxation of the Foreign Licensor in South Africa

PEARCE E. ROOD*

## INTRODUCTION

THE PERIOD SINCE THE END OF WORLD WAR II has witnessed the emergence of the Republic of South Africa[1] as a major industrial nation. Since the application of overseas technology to South African industry has been one of the cornerstones of this development, it is not surprising that the licensing or sale of patents, trademarks, designs

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[1] The Republic of South Africa is situated at the southernmost tip of the African continent. It has a unitary constitution and was until 1961 (as the Union of South Africa) a member of the British Commonwealth.

*EDITOR'S NOTE: This article is the fifth report in a series of studies being conducted by John F. Creed and Dennis I. Meyer, members of the Research Staff of The PTC Research Institute, dealing with the taxation of the foreign licensor in certain selected non-U.S. jurisdictions. The series naturally breaks down into three study groupings:*

1. *Australia, Canada, United Kingdom, South Africa and India.*
2. *The Common Market countries.*
3. *Japan.*

*At a later time other non-U.S. jurisdictions will be included in the series.*

*While the studies are involved principally with income taxation,*

and know-how by foreign (chiefly United Kingdom and United States) enterprises to local undertakings is carried out on a large scale. This article will consider the impact of South African taxation on the exploitation in the Republic of such foreign-owned technology.[2] It will commence with a general survey of the South African tax system before proceeding to consider in greater depth the aspects which particularly concern the foreign licensor.

## General Scheme of South African Taxation

The statute governing South African taxation is the Income Tax Act of 1962[3] which imposes several taxes on behalf of the central

[2] The term "industrial and intellectual property" will henceforth be applied to patents, designs, trademarks, copyrights and know-how. Know-how only constitutes property, however, when it is in the form of secret processes, formulae or data: see discussion at pp. 177-181 below.

[3] Act No. 58 of 1962 as amended by the Income Tax Acts enacted each year since then. The 1962 Act as amended is henceforth referred to as "the Act," and references to section numbers, unless otherwise stated, are to sections of the Act.

*other taxes are also covered where they have a material impact on the foreign licensor. Particular attention is paid to the taxation of U.S. licensors in the various jurisdictions, and in this connection an analysis of the pertinent U.S. double taxation treaties comes into play.*

*The studies are being undertaken by men who, through training and experience, are tax experts in the respective jurisdictions. In presenting their studies, they strive to walk the path between undue technicality and over-simplification.*

*The first report in the series, "Taxation of the Foreign Licensor in Australia" prepared by John K. Connor, was published in Volume 8, Number 1 (Spring 1964) of IDEA. The second in the series, "Taxation of the Foreign Licensor in Canada" by Hubert J. Stitt and John A. Gamble, appeared in Volume 8, Number 2 (Summer 1964). The third, "Taxation of the Foreign Licensor in the United Kingdom" by Malcolm J. F. Palmer, was published in Volume 9, Number 3 (Fall 1965). The fourth in the series, "Taxation of Foreign Licensors in Italy" by Peter C. Alegi, appeared in Volume 12, Number 1 (Spring 1968).*

government and authorizes the imposition of others by the provincial administrations.[4] As the provincial taxes are not payable by non-residents, nor by corporations even if resident, the discussion in this article will be confined to the various taxes on income imposed by the central government. These are the income tax (which the Act terms the "normal tax"), undistributed profits tax, non-resident shareholders' tax and non-residents' tax on interest. Although the foreign owner of industrial and intellectual property is likely to be concerned in practice only with the first of these taxes, the normal tax, a brief description will be given of the others later in this article.

### *Taxable Income*

To paraphrase Lord MacNaghten's celebrated truism,[5] normal tax is a tax on taxable income. The framework which the Act provides for determining taxable income is perhaps more cumbersome than it need be and involves, as it were, the peeling off of surrounding layers of nontaxable receipts and deductible expenditure in order to reach the core of taxable income. The starting point, when all of the taxpayer's receipts in money or (where appropriate) in kind have been collected together, is the exclusion of those which are of a capital nature or are derived from sources outside South Africa. The resultant amount is the taxpayer's gross income. Any forms of receipt which are exempt from taxation are then deducted, leaving what the Act terms "income." Finally any allowable deductions for which the taxpayer qualifies are deducted from income, thus arriving at taxable income. Taxable income may therefore be defined as the residue of a taxpayer's total receipts and accruals after deduction of those which are of a capital nature, which come from sources outside South Africa, or are exempt, and after deduction of allowable expenditure. Each of these concepts will now be considered in more detail.

### *Income and Capital Receipts*

The need to differentiate receipts of an income from those of a capital nature can prove as troublesome in South Africa as in other tax

[4] There are four provinces to whom powers, mainly in relation to roads, health and white schooling are delegated by the constitution. They are Cape Province, Natal, Orange Free State and Transvaal.

[5] "Income Tax, if I may be pardoned for saying so, is a tax on income." (London County Council v. Attorney-General, 4 T.C. 265).

systems. In practice the status of most forms of receipt will be self-evident and it is the borderline cases, most notably those involving the acquisition and disposal of property as a more or less isolated transaction,[6] that cause difficulty. In these cases the primary inquiry is generally whether, in the words of a Scottish judge,[7] the receipt represents "a gain made in an operation of business in carrying out a scheme of profit-making." It is necessary to establish whether the taxpayer's intention, when he acquired the property, was to hold it as an investment, in which case the proceeds of sale would be capital, or whether he was aiming, in a businesslike way, at making a profit, in which case the proceeds would be of an income nature. In adjudging the taxpayer's intention, the South African courts will have regard to factors such as the nature of his business or his occupation; the provisions (in the case of corporations) of the purposes clause in its charter, that is to say whether or not the activity yielding the receipt is one of the main purposes for which the corporation was organized; the nature of the property or rights disposed of; and the frequency or regularity with which the taxpayer has engaged in transactions of that nature.[8]

The Act avoids a number of pitfalls by expressly designating as gross income various forms of receipt which may, conceptually, have been regarded as capital.[9] Lump sums received as consideration for the licensing for use in South Africa of any patent, design, trademark, copyright or similar property, or for the imparting of know-how in connection with such licensing, are so designated.[10]

*Source*

The pivotal concept in South African taxation is that of source. It is a prerequisite of the inclusion of a receipt in gross income that it should be derived from a source within South Africa. Apart from the

[6] As there is no taxation of capital gains in South Africa, the Revenue perhaps contest such borderline cases more zealously than they would were capital gains taxed.

[7] Lord Justice Clerk in Californian Copper Syndicate v. Harris, 5 T.C. 159 at p. 166. This test was adopted in, among others, the following South African cases: Overseas Trust Corporation Ltd. v. C.I.R., 2 S.A.T.C. 71; C.I.R. v. Stett, 3 S.A.T.C. 253; and Crowe v. C.I.R., 4 S.A.T.C. 133.

[8] See e.g. Crowe v. C.I.R. *supra;* C.I.R. v. Strathmore Exploration and Management Ltd., 20 S.A.T.C. 375; and Willcox v. C.I.R., 24 S.A.T.C. 1.

[9] See definition of gross income in § 1.

[10] Para. (g) (iii) and (iv) of the definition of gross income; see further p. 181 *et seq.* below.

deeming provision,[11] whereby certain classes of receipt are required to be treated as accruing from a South African source whether, by the general principles, they would have been so treated or not, the Act does not define source; and the South African courts have been unwilling to supply a definition. There is therefore no all-embracing test which may be applied to every situation. Each case, the courts have stressed, must be decided in the light of its own facts, and on several occasions South African judges have cited with approval the remarks of an Australian judge that source is not truly a legal concept but is "something which a practical man would regard as a real source of income" and that "the ascertainment of the actual source is a practical hard matter of fact."[12]

Nevertheless the cases on the subject do suggest a broad line of approach. The weightiest judicial statement on source has undoubtedly been that of Chief Justice Watermeyer in the *Lever Brothers* case,[13] decided in 1946. "The source of receipts," he said,[14]

> is not the quarter whence they come, but the originating cause of their being received as income and . . . this originating cause is the work which the taxpayer does to earn them, the quid pro quo which he gives in return for which he receives them. The work which he does may be a business which he carries on, or an enterprise which he undertakes, or an activity in which he engages and it may take the form of personal exertion, mental or physical, or it may take the form of employment of capital either by using it to earn income or by letting its use to someone else. Often the work is some combination of these.

Since "source denotes origin, not location,"[15] two inquiries are necessary: first, what the source of the receipt is and, secondly, where that source is located. Hence, in the *Lever Brothers* case, the Appellate Division[16] was required to determine the source of an interest payment received by a foreign corporation in respect of a loan which had been made to a South African corporation. According to one line of argument the interest might have been regarded as South African source income since the debtor corporation was resident in South

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[11] § 9.

[12] Isaacs J. in Nathan v. F.C. of T. (1918), 25 C.L.R. 183 at pp. 189/190 approved in, inter alia, C.I.R. v. Lever Bros. & Unilever Ltd., 14 S.A.T.C. 1.

[13] C.I.R. v. Lever Bros. & Unilever Ltd., 14 S.A.T.C. 1.

[14] At pp. 8-9.

[15] Per Innes C.J. in Overseas Trust Corporation Ltd. v. C.I.R., 2 S.A.T.C. 71 at p. 76.

[16] The Supreme Court of South Africa is divided into a number of Provincial Divisions and an Appellate Division. The Appellate Division, seated at Bloemfontein, is the highest court of appeal and receives appeals from the Provincial Divisions.

Africa.[17] The court held, however, that the originating cause of the income being received as income was the act of the lender in making the credit available to the borrower. As this had taken place outside South Africa, the interest was not from a South African source and thus was not taxable.

In several cases the source of a receipt has been determined by reference to the place where the taxpayer "productively employed his capital."[18] But the approach now most favored by the courts is what may be termed the "activities test." An early and influential example of its application concerned the authoress Sarah Gertrude Millin who, by a contract made in England, sold the copyright of a book she had written in South Africa to an English publisher. The Appellate Division rejected the taxpayer's attempt to have the place where the contract was made treated as the crucial factor, and held that the royalties accruing to her were derived from a South African source.[19] In the words of Chief Justice Solomon:[20]

> It was the exercise of her wits and labour that produced the royalties. They were employed in the Union, and it matters not . . . that the grant to her publisher of the right to publish her book was contained in a contract made in England. Her faculties were employed in the Union both in writing the book and in dealing with her publishers and, therefore . . . the source of the whole of her income would be in the Union.

Several more recent decisions of the Appellate Division have confirmed the activities test as the authoritative one.[21] In cases where the taxpayer's activities which earned him the income occur in more than one country, the court will inquire whether "the dominant, or main, or substantial or real and basic cause of the accrual of the income" is to be found in the Republic, in which case the income will be treated as South African source income.[22]

As already indicated, a consideration of the general source principles is unnecessary in cases where Section 9, the deeming provision, applies. Examples of the forms of income which that section deems to be derived from a South African source are the proceeds of sale of goods (whether delivered in or out of the Republic) in cases where

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[17] This argument was accepted by Schreiner J.A. in his dissenting judgment.

[18] See e.g. the judgments of Innes C.J. in Overseas Trust Corporation Ltd. v. C.I.R., 1926 A.D. 444; and Stratford C.J. in Rhodesia Metals Ltd. v. C. of T., 9 S.A.T.C. 363.

[19] Millin v. C.I.R., 3 S.A.T.C. 170.

[20] *Id.* at p. 176.

[21] See e.g. C.I.R. v. Epstein, 19 S.A.T.C. 221.

[22] C.I.R. v. Black, 21 S.A.T.C. 226.

the contract was entered into in South Africa,[23] the remuneration for any service rendered or work or labor done in the carrying on in the Republic of any trade,[24] and (from the point of view of this article the most significant example) the consideration received for licensing any patent, design, trademark, copyright or similar property for use in South Africa, or for imparting know-how in connection with the use in the Republic of such patent or other property.[25]

*Exempt Income*

As mentioned before, the Act exempts some forms of income from taxation. It does this by permitting such exempt income to be deducted from "gross income."[26] Of these exemptions the only one of importance in the present context is that given to authors who dispose of or grant interests in the copyright of their work; the receipts accruing to an author in those circumstances are exempt from South African taxation so long as they are taxable in some country other than the Republic, and provided the author is the first owner of the copyright in question.[27] This exemption would benefit both a foreign author who assigned or licensed the South African copyright of his work and who was taxed on the consideration in his country of residence, and a South African author who disposed of, say, the United Kingdom copyright in his work in circumstances rendering the consideration liable to the United Kingdom tax. It is only the original proprietor of the copyright who qualifies for the exemption.

*Deductible Expenditure*

The last stage in computing taxable income is to determine the expenditure, if any, which qualifies for deduction. To be allowable, expenditure must be of a revenue nature, incurred in the production of the income from which it is sought to be deducted and, where the taxpayer is engaged in trade, "wholly or exclusively laid out or expended for the purposes of trade."[28] Expenditure incurred in the Republic, so long as it satisfies the statutory conditions, is deductible as

[23] § 9 (1)(a).
[24] § 9 (1)(d).
[25] § 9 (1)(b). This provision is considered further at p. 174 *et seq.* below.
[26] See § 10..
[27] § 10 (1)(m).
[28] See § 11(a) and § 23.

of right; the allowance of expenditure incurred outside the Republic, on the other hand, is within the discretion of the Inland Revenue.[29]

The calculation of the deduction permitted to the foreign owner of industrial and intellectual property against the income derived from the exploitation of that property in South Africa is considerably simplified by the operation of a withholding procedure. The Act encourages the licensing of technology by foreign enterprises and appears to recognize the research, development and marketing expenditure incurred by the foreign licensor by allowing, effectively, a deduction of 70 percent against the gross income derived from the licensing of the property. This is achieved by stipulating that 30 percent of the income accruing to the foreign licensor is to be treated as taxable income in his hands.[30]

*Residence*

The residential status of the taxpayer, which is determined by principles corresponding broadly to those applied in the United Kingdom,[31] is not as a rule a criterion of taxability, since the primary question, as already explained, is that of source. Thus non-residents are liable to South African tax only on income from sources within the Republic, and, conversely, residents of the Republic are not taxed on income from sources outside South Africa. This broad statement must be qualified, however, in certain respects. Specifically, the Act classifies as South African source income, if received by residents, certain forms of receipt which in the hands of non-residents would be treated as arising abroad. Hence dividends paid to South African residents by foreign corporations are required to be treated as South African source income, and are thereby brought within the tax net,[32] whereas on general principles dividends would be treated as having their source where the corporation paying them is organized.[33]

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[29] § 11 (b).

[30] See § 35, considered more fully at p. 184 below.

[31] A corporation will be treated as resident at any place where it is managed and controlled (De Beers Consolidated Mines Ltd. v. Howe, 5 T.C. 198). An individual will be regarded as resident, in broad terms, where his center of life is, but a person whose center of life is in another country may nonetheless be treated as resident in South Africa if he pays regular visits of substantial duration to the Republic.

[32] Para.(k) of definition of "gross income" in § 1.

[33] See Boyd v. C.I.R., 17 S.A.T.C. 366. This is so even if the stock in respect of which the dividends are paid is registered in a branch register in a country other than the country of incorporation unless, perhaps, the branch register, according to the law of the place of incorporation, is treated as independent of and not part of the principal register (see Lamb v. C.I.R., 20 S.A.T.C. 1).

Residence has further significance in relation to the favorable rates of withholding tax accorded to royalties, dividends, and interest received by non-residents,[34] and the immunity from undistributed profits tax enjoyed by foreign-controlled companies.

*Non-Resident Shareholders Tax*

This is a withholding tax on dividends paid by South African companies to individuals who are not resident and who do not carry on business in the Republic, or to companies which are neither incorporated nor carry on business in the Republic. The present rate is 15 percent.[35]

*Non-Residents Tax on Interest*

As mentioned in the discussion on source, the Appellate Division held in 1946 in the *Lever Brothers* case[36] that the source of interest paid in respect of a loan was the making available of the credit, so that if this took place outside South Africa, the interest was not South African source income. Although the principles on which that decision was based continue to be authoritative on questions of source generally, the direct effect of the decision on the source of loan interest has to some extent been nullified by the introduction, in 1967, of a new withholding tax known as the non-residents tax on interest.

Without expressly attributing a South African source to such interest, the 1967 provisions[37] impose a withholding tax of 10 percent on any interest paid by a debtor who is resident or carries on business in the Republic to a person who, if an individual, is not resident in the Republic or, if a corporation, is not incorporated there. However, the tax is not charged on interest which, together with the borrowed sum, is paid out of foreign funds belonging to the debtor, provided the loaned money is not used to produce gross income, nor on interest paid in the Republic on money lent in the Republic by a person who has a permanent place of business there. Interest paid by the government or any other public authority is also exempt from the tax.

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[34] For royalties see § 35, discussed further at p. 184 below. For dividends and interest see the discussion of the non-resident shareholders' tax and the non-residents tax on interest.

[35] See §§ 41-47.

[36] C.I.R. v. Lever Bros. & Unilever Ltd., 14 S.A.T.C. 1.

[37] They now appear as § 64 A-F of the main Act.

*Undistributed Profits Tax*

Companies incorporated or carrying on business in South Africa are liable to an undistributed profits tax at the rate of 25 percent to the extent that retained earnings exceed a permitted level. Broadly speaking, a private company is permitted to retain 45 percent of its total net profits from all sources, and a public company[38] the whole of its profits from South African sources and 25 percent of its profits from non-South African sources.[39]

In this context "total net profits" has a wider connotation than "taxable income." The term covers not only the taxable income of the company in the normal sense but also profits derived from non-South African sources, and certain forms of exempt income including dividends. Conversely, slightly more latitude is allowed as to the expenditure which may be deducted in arriving at total net profits, than is the case with taxable income.

There is very little likelihood that a foreign corporation, or even a South African subsidiary of a foreign corporation, will become liable to undistributed profits tax, as such corporations will generally qualify for one or other of the exemptions from the tax.[40].

*Rates of Tax*

The normal tax on the taxable income of individuals is assessed as graduated rates. Corporate profits, on the other hand, are taxed at the flat rate of 40 percent.[41]

[38] A public company, in broad terms, is a corporation all classes of whose equity stock are quoted on a recognized stock exchange or an unquoted corporation in whose stock the general public is interested to the extent of at least 50% (see § 38). The general public does not include directors or relatives of directors or any person who (together with his family) is interested in more than 15% of any class of equity stock. A private company is any company other than a public company.

[39] This is a considerable truncation, at the expense of absolute accuracy, of the complicated provisions relating to this tax. The relevant provisions are §§ 48 to 53.

[40] For example, a corporation which is registered outside but carries on business in South Africa will be exempt if it can show that not more than 50% of its total net profits were derived from sources within the Republic in the fiscal year in question [§ 50 (e)]. So generally will a corporation 50% or more of whose equity stock is held by non-resident persons (but if such non-residents are companies they have to show that they derive the greater portion of their profits from sources outside South Africa)—see § 50 (d).

[41] Income Tax Act 1969 (Act No. 89 of 1969), s. 1. Previously the rate applicable to corporations was 40% of which 3.3% (the so-called "loan levy") was repayable with interest after a period of from 5 to 8 years. The loan levy was not, however,

### *Gifts and Capital GainsTax*

To conclude this general survey of the South African tax system, it should be mentioned that there is a gifts tax in South Africa,[42] but no taxation of capital gains.

## Special Problems Affecting the Foreign Licensor or Owner

The inquiries involved in determining the South African tax position of the foreign licensor or owner of industrial or intellectual property will have been indicated by the foregoing discussion. They are threefold: to ascertain and locate the source of the receipts derived from the exploitation of the property; to classify the receipts as income or capital; and, assuming that the receipts are South African source income, to calculate the allowable expenditure, if any, to be deducted therefrom.

### *Source*

Considering first the source of receipts, paragraph (b) of Section 9 (1) attributes a South African source to any amount derived from:

> the grant of permission to use in the Republic, or the imparting of or the undertaking to impart any knowledge directly or indirectly connected with the use in the Republic of . . . any patent as defined in the Patents Act, 1952 (Act No. 37 of 1952)[43] or any design as defined in the Designs Act, 1967 (Act No. 57 of 1967), or any trademark as defined in the Trade Marks Act, 1963 (Act No. 62 of 1963), or any copyright as defined in the Copyright Act, 1965 (Act No. 63 of 1965),[44] or any other property which in the opinion of the

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payable by corporations which were not incorporated or which did not carry on business in South Africa; for such corporations, therefore, the effective rate of tax was 36.7%.

[42] The tax is termed the donations tax and the provisions concerning it are to be found in §§ 54-64.

[43] "Patent" as defined by § 1 (x), Act 37 of 1952 means any "letters patent for an invention granted in the Union."

[44] The definitions in the relevant statutes are as follows:

"Design" means any design applied to any article, whether for the pattern, for the shape or configuration or for the ornamentation thereof or for any two or more of such purposes, and by whatever means it is applied, in so far as such features appeal to and are judged solely by the eye: Provided that any feature of an article insofar as such feature is dictated solely by the function which the article is intended to perform and any method or principle of construction shall be excluded from the rights afforded by this Act; (Designs Act No. 57 of 1967, § 1 (1)(vi)).

> Secretary[45] is of a similar nature; . . . wheresoever such patent, design, trade mark, copyright, [or] property . . . has been produced or made or such permission has been granted or such knowledge has been imparted or such undertaking has been given or payment for such use, grant of permission, imparting of knowledge or undertaking has been made or is to be made, and whether such payment has been made or is to be made by a person resident in or out of the Republic Provided that the provisions of this paragraph shall not apply in respect of any amount which . . . is received by or accrues to any person (other than a company) who is not ordinarily resident in the Republic, or any company which is not registered in the Republic, in respect of the use (otherwise than for advertising purposes in connection with any motion picture film) in any printed publication of any copyright as aforesaid.

*Patents, Designs, Trademarks and Copyrights*

The paragraph quoted above avoids any difficulties that may otherwise have been encountered in determining the source of the consideration received by a foreign owner of a patent, design or trademark who licenses[46] such property for use in South Africa. In any such case the source would be located within South Africa, irrespective of where the license agreement was entered into. With respect to copyright, the proviso at the end of the paragraph establishes that the foreign proprietor will not be deemed to have received South African source income from the licensing of a South African copyright relating to a printed publication,[47] unless it relates to promotional material for a

"Trade mark" means a mark (other than a certification mark) used or proposed to be used upon or in relation to goods for the purpose of:—

(a) indicating a connection in the course of trade between the goods and some person having the right either as proprietor or as a registered user to use the mark, whether with or without any indication of the identity of that person; and

(b) distinguishing the goods upon which or in relation to which the mark is used, from the same kind of goods manufactured, produced, selected, dealt with or offered for sale by any other person; (Trade Marks Act No. 62 of 1963, § 2 (1)(xxi)).

"Copyright," in relation to a work, means "the exclusive right conferred by virtue of and subject to the provisions of the Act, to do and to authorise other persons to do in the Republic such acts in relation to that work as are in any relevant provision of this Act designated as acts restricted by the copyright in a work of that description;" (Copyright Act No. 63 of 1965 § 1(x)).

[45] I.e., the Secretary for Inland Revenue, who is the administrative head of the Department of Inland Revenue. This office was until 1964 filled by the Commissioner for Inland Revenue.

[46] The Act refers to "the grant of permission to use" but the shorter and universally used term "licensing" is preferred in this article.

[47] The copyright in broadcast or televised material would be covered by the main provisions of § 9 (1) (b) and treated alike with patents, etc.

motion picture; this does not mean that it is not open to the Revenue to treat such copyright royalties as arising within South Africa under the general source principles discussed above, but there would be no basis for such an attribution where the licensor had no business in the Republic and had not developed the copyright material in South Africa.[48]

The Act furnishes no guide as to the source of payments received as consideration for the outright sale or assignment, as distinct from the licensing, of a patent, design, trademark or copyright. The principles established in the *Millin* case would assist the foreign vendor who was the original proprietor of the property in question, since the "wits and labour" expended by him in developing the property will normally have been exercised outside South Africa.[49] In the case of a vendor who was not the original owner of the property and who had entered into the contract for sale outside South Africa, a South African source could not be attributed to the consideration unless the vendor was carrying on the business in the Republic of dealing in property of that nature.[50]

*Know-how*

Know-how, in the words of the authors of an earlier article in this journal, may "consist of inventions, processes, formulae, or designs which are either unpatented, or unpatentable; it may be evidenced by some form of physical matter, such as blueprints, specifications, or drawings; it almost invariably includes trade secrets; and it may involve accumulated technical experience and skills which can best, or perhaps only, be communicated through the medium of personal services."[51] It will have been noted that Section 9 (1) (b) is concerned with the licensing not only of patents, designs, trademarks or copyrights, but also of property which in the opinion of the Secretary for Inland Revenue is of a similar nature. The immediate question which this prompts is whether know-how, in any of its forms, is regarded by

[48] See Millin v. C.I.R., 3 S.A.T.C. 170, discussed at p. 170 above. See also the exemption afforded to the first owner of a copyright by § 10 (1)(m), discussed at p. 171 above.

[49] See passage cited at p. 170 above.

[50] Where the vendor was not carrying on such business, the question of source would be irrelevant since the consideration for the sale, if in the form of a lump sum, would in any event be non-taxable on the grounds of its being of a capital nature.

[51] See John F. Creed and Robert B. Bangs, " 'Know-How' Licensing and Capital Gains," *PTC J. Res. & Ed. (IDEA)*, Vol. 4, No. 2 (Summer 1960), p. 93.

the Secretary for Inland Revenue as property of a similar nature to patents, designs, trademarks or copyrights. The answer is yes, when the know-how takes the form of unpatented secret processes, inventions, and formulae, trade secrets or confidential data.[52] As a result, receipts derived from the licensing of secret processes for use in South Africa are placed on the same footing as receipts from the licensing of patents, designs or trademarks, that is to say, such receipts will be deemed to arise from a source within South Africa, wherever the contract governing the licensing is entered into.

A secret process is thus (or, at all events, is regarded by the Inland Revenue as being) an item of property, the use of which may be licensed.[53] But Section 9 (1) (b), it will have been noted, also covers

[52] The single term "secret processes" will henceforth be used to denote, collectively, all unpatented technology, information, trade secrets and know-how of a secret or confidential nature.

[53] The power pursuant to which the Secretary for Inland Revenue equates secret processes with patents and like property is a discretionary one. The exercise by an official of a discretionary power entrusted to him by statute can only be challenged (unless the statute itself confers a right of appeal or review) on the grounds that the official has not exercised his power in good faith, or has ignored the terms of the statute or of the law on the subject (see e.g. C.I.R. v. City Deep Ltd., 1 S.A.T.C. 18). There are cogent arguments that secret processes should not be regarded as property of a like nature to patents, etc. or, indeed, as property at all. This view was accepted by the High Court of Australia in F.C. of T. v. United Aircraft Corporation, 68 C.L.R. 525 where Latham C.J., in his judgment, did not consider that knowledge could be described as property "except in a metaphorical sense," and confessed himself completely unable to appreciate as a legal statement the proposition that "the fact that knowledge is secret in some way creates a proprietary right in that knowledge."

Furthermore, in a recent South African decision [Dun & Bradstreet (Pty) Ltd. v. S. A. Merchants Combined Credit Bureau (Cape) (Pty) Ltd. 1968 (1) SALR 209] a Judge of the Cape Provincial Division in declining to ground the relief he gave a plaintiff, whose confidential credit records had been put to improper use by the defendant, on the basis that the confidential information was property at common law, expressed the view that such information was not property. It may be argued, too, that in jurisprudential terms a secret process or unpatented invention, if it is property at all, is property of a wholly different nature to patents, designs, trademarks and copyrights. A patent, for instance, is the right by virtue of which its holder is entitled to exercise a monopoly for a stated period in respect of the use of the process or invention which forms the subject of the patent. Competitors of the patentee are free to inspect the specification of the patented process but require the license of the patentee before they may put it to use. By contrast, competitors of the owner of a secret process are free to make use of the process provided they obtain details of it by lawful means, for example by developing the same process for themselves. Once the process is disclosed to others on conditions which do not bind the person to whom it is disclosed to secrecy, it loses any saleable value it may have had in the hands of the original owner, though he may of course continue to derive value from it by utilizing it in his own business.

Nevertheless there appear to be sufficiently weighty counter-arguments to support the manner in which the Secretary for Inland Revenue has exercised his discre-

"the imparting of knowledge"[54] in connection with the use in South Africa of a patent, design, trademark, copyright or similar property (i.e., a secret process). Hence it provides an alternative, and—since know-how is a broader concept than secret processes, embracing as it does any accumulation of technical skills and experience—a wider ground for attributing a South African source to payments for know-how. There is nothing in the Act to suggest that the meaning of the term "the imparting of knowledge" is to be limited to the rendering of technical instruction or services. Know-how is imparted when it is communicated by one party to another, whether the form of transaction adopted by the parties is that of a licensing agreement, sale, or agreement for the provision of technical services. It follows that receipts from the sale or licensing[55] of know-how, or the provision of technical instruction, will be treated as arising from a source within South Africa whenever there is a direct or indirect connection between the imparting of the know-how and the use in the Republic of a patent, design, trademark, copyright or secret process.[56]

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tionary power. There is, for example, English authority for the view that secret processes are similar to patents. (See e.g. the speech of Viscount Simonds L.C. in Evans Medical Supplies Ltd. v. Moriarty, 37 T.C. 540. His lordship considered that it was "manifest that a secret process, whether in composition or methods of storing and packing, is something which can be disposed of for value and that by imparting the secret to another its owner does something which could not fairly be described as 'rendering a service'." Later in his speech his lordship stated that he saw "no difference between a patent and a secret process.") In the United States, a Revenue Ruling (64-56, 1964-1 Cum. Bull 133) has stipulated that the term "property," in relation to § 351 transfers, includes anything qualifying as "secret processes and formulas." And several of the double taxation conventions concluded by South Africa, e.g. Article II (j) of the U.S.A. / S. Africa treaty, in defining "royalties," equate secret processes and formulae with patents and similar property.

[54] The Act uses the term "knowledge" in preference to the more colloquial but widely-used "know-how," but the two terms are in fact synonymous. It is interesting in this context to note that in the United Kingdom the 1968 Finance Act uses the term "know-how" which it defines as "any industrial information and techniques likely to assist in the manufacture or processing of goods or materials."

[55] Of course, when a secret process is licensed for use in South Africa, the consideration will be deemed to arise in South Africa under the main head discussed in the preceding paragraph.

[56] Such connection is necessary if the imparting of the know-how is to be within the terms of § 9 (l) (b) though it should be noted that the language of that section does not require that the person to whom the know-how is imparted and the person using the patent or other property be one and the same, so long as there is a direct or indirect connection between the imparting of the know-how and the use of the property. The requirement of a connection would presumably be satisfied if know-how was imparted to one party and then imparted by that party to a third party, which needed it to enable it to use, for example, a patented process for manufacturing purposes.

In the absence of any case law on the subject, it is not possible to give a definitive answer to the question what constitutes a direct or indirect connection between the imparting of know-how and the use of a patent or other specified property.[57] Strictly speaking, whenever technical instruction is furnished to a producer of goods, there will be an indirect connection between the provision of the know-how and at least one form of specified property, namely trademarks, inasmuch as the goods being produced will invariably be marketed under a trademark (whether registered or not). It would seem to be more logical, however, to regard the requirement of a direct or indirect connection as satisfied only when the connection is within the contemplation of the parties, in the sense that the know-how provided by the foreign enterprise is needed by the South African concern to enable it to exploit the patent or other specified property or to utilize such property more effectively than it could otherwise have done.

The location of the source of payments for know-how, in cases where there is no connection between the imparting of the know-how and the use in the Republic of a patent or other specified property, is not covered by Section 9 (1) (b),[58] and has therefore to be considered in the light of the general principles already discussed.[59] The provision of technical instruction by technicians employed by a foreign enterprise to local personnel, in terms of determining the "originating cause" of the consideration received by the foreign enterprise for such instruction,[60] will be regarded as the rendering of services, and the source will be located at the place where the services are performed.[61] The source will therefore be in South Africa if the instruction is actually or substantially given in South Africa, but not if the services rendered in South Africa are of a purely ancillary nature to the

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[57] For the sake of brevity the forms of property which the terms patents, designs, trademarks, copyrights and secret processes denote will henceforth be referred to on occasions as "specified property."

[58] Save as to the licensing of a secret process, which is covered by § 9 (1) (b) whether or not the process is to be used in connection with the use of a patent or other specified property: see the first paragraph under the heading "Know-how" above.

[59] See p. 168 *et seq.* above.

[60] I.e. the quid pro quo which the foreign enterprise gives in exchange for the payments it receives—see passage from Watermeyer C.J.'s judgment in the Lever Brothers case quoted at p. 169 above.

[61] See e.g. Income Tax Case No. 100, 3 S.A.T.C.; Income Tax Case No. 396, 10 S.A.T.C. 87; and Income Tax Case No. 266, 7 S.A.T.C. These were decisions of the Special Court which hears appeals from assessments made by the Inland Revenue, and from which a further right of appeal lies to the Supreme Court.

know-how imparted by the foreign enterprise outside South Africa.[62] When the imparting of know-how takes the form of the sale of a secret process, the *Millin* case may be relied on: the foreign vendor of the know-how, having expended his "wits and labour" in developing the process in his own country, will not be regarded as receiving a payment from a South African source.

*Income or Capital Receipts*

Even though a receipt may be derived from a South African source, in order to be taxable in South Africa it is necessary also that it should be of an income nature. Royalties or other recurring payments which are measured by reference to sales or production of goods, or to the use to which patents or other specified property are put, are always to be regarded as income even if they are received as consideration for an outright sale.[63] So are the fees or other consideration charged for the provision of technical services.

As to lump sum payments, the Act specifically includes in the definition of "gross income"

> any amount received or accrued . . . as premium or like consideration . . . for the right of use of any patent . . . or any design, trademark or copyright . . . or any other property which, in the opinion of the Secretary, is of a similar nature, or for the imparting of or the undertaking to impart any knowledge directly or indirectly connected with the use of such . . . patent, design, trademark, copyright or other property.[64]

It does not therefore assist an owner of a patent or other specified property to take his consideration for the licensing of the property in the form of a lump sum: such consideration will be treated as income. Also required to be treated as income, given that "the imparting of knowledge" has the same meaning here as in Section 9 (1) (b), are payments of a lump sum nature received for the provision of

[62] If instruction manuals are delivered to the South African concern outside South Africa, if the foreign enterprise receives personnel for instruction at its factory in its own country, and if any of the foreign enterprise's technicians sent to South Africa to instruct local personnel are paid by the South African concern while they are there, it is believed that, in view of the persuasive authority of the Australian decision in F.C. of T. v. United Aircraft Corporation, 68 C.L.R. 525, the consideration received by the foreign enterprise would not be imputed to a South African source.

[63] It is believed that the remarks to this effect by Denning M.R. in the English case of Murray v. Imperial Chemical Industries Ltd. (1967), 2 A.E.R. 980 would be followed in South Africa but there is no direct authority to that effect.

[64] Para. (g) of definition of "gross income" in § 1.

know-how, whether by way of selling secret processes or furnishing technical services, so long as the know-how is imparted in connection with the use of one or other form of specified property in the Republic.

When a patent, design or trademark is sold or assigned outright for a lump sum consideration, the receipt will be capital and hence non-taxable in the assignor's hands provided the assignor is not carrying on the business of dealing in the form of property sold, or did not acquire it in circumstances which would suggest that the transaction was "an operation of business in carrying out a scheme of profit-making."[65] The consideration for the sale of a copyright is exempt from taxation, however, provided it is taxable in some country other than South Africa, and the vendor was the first proprietor of the copyright.[66]

Whether a person who has granted an exclusive license of a patent for the remainder of its life will be permitted to have the transaction treated as though it were in fact an outright assignment of the patent (with any lump sum consideration thus being regarded as capital) is doubtful. It is true that the United Kingdom Court of Appeal, in a recent case,[67] held that a lump sum received by a corporation in consideration of its covenanting, upon granting an exclusive license of a patented process, not to compete in the licensee's market, was a capital and not a trading receipt, and that this decision was based on the exclusive license having the character of an outright assignment.[68] Nevertheless the South African courts are more likely to be persuaded by the reasoning of Beadle C.J. in the Rhodesian decision of *Vacu-lug (Pvt) Ltd.* v. *Commissioner of Taxes.*[69] The *Vacu-lug* case was concerned with the treatment of a lump sum received as consideration for an undertaking to impart know-how coupled with the grant of an exclusive license to use a patented process for the remainder of the term of the patent. The grantor had previously received a grant in similar terms from its United Kingdom parent company. Counsel for the taxpayer contended that the sale of the know-how and the grant of the exclusive patent license for the remainder of the term effectively

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[65] *Supra* note 7.

[66] § 10 (1)(m).

[67] Murray v. Imperial Chemical Industries Ltd. (1967), 2 A.E.R. 980.

[68] § 322 (2) of the United Kingdom Income Tax Act 1952 requires the grant of a license of patent rights whereby the licensee is entitled "to exercise those rights to the exclusion of the grantor and all other persons for the whole of the remainder of the term for which the rights subsist" to be treated as the sale of the whole of the rights, but the Court of Appeal appear to have disregarded this provision in arriving at their decision.

[69] 1963 (2) S.A.L.R. 694.

constituted a capital transaction[70] so that the lump sum received as consideration should not be treated as a trading receipt. The Rhodesian court rejected this argument. Viewing the agreement as a whole, and attaching particular significance to the fact that the parties had chosen to express the dealing with the patent as a license to use the patented process rather than as an outright assignment, Beadle C. J. came to the conclusion that the taxpayer had merely put the rights which it had been granted by its United Kingdom parent to productive use by subletting them, and that there had not been any outright assignment of rights.

When there is an outright sale of know-how otherwise than in connection with the use in South Africa of a patent or other specified property[71] the South African courts are likely to follow the High Court of Rhodesia (in the *Vacu-lug* case) in adopting the principles enunciated in the United Kingdom in the *Evans Medical Supplies Ltd, Rolls-Royce* and *English Electric Ltd* cases.[72] These decisions have been discussed in previous articles in this series[73] and the principles for which they provide authority need be referred to only briefly. The test would appear to be whether the vendor, in selling the know-how, is disposing finally of an income-producing asset so as effectively to prevent the further exploitation of that know-how by the vendor in a particular market, or whether it is merely adopting the method which is most convenient to it of carrying out its trading activities in that market. In the former case, as exemplified by the *Evans Medical Supplies Ltd* decision, the purchase moneys would be treated as capital; in the latter case, as in the *Rolls-Royce* decision, they would constitute a trading receipt.

### *Allowable Expenditure*

The tax implications of the licensing or sale of industrial or intellectual property, from the licensee's or purchaser's point of view,

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[70] Counsel sought to base his argument on the English House of Lords decision in Evans Medical Supplies Ltd. v. Moriarty, 37 T.C. 540.

[71] Where there is such connection, the consideration will be treated as gross income by virtue of the definition quoted on pp. 175-176 above.

[72] Evans Medical Supplies Ltd. v. Moriarty, 37 T.C. 540; Jeffreys v. Rolls-Royce Ltd., 40 T.C. 443; and Musker v. English Electric Ltd., 41 T.C. 556.

[73] See e.g. "Taxation of the Foreign Licensor in Australia," by John K. Connor, *IDEA,* Vol. 8, No. 1 (Spring 1964), p. 24 and "Taxation of the Foreign Licensor in the United Kingdom," by M. J. F. Palmer, *IDEA,* Vol. 9, No. 3 (Fall 1965), p. 377.

may have a significant bearing on the form adopted for the transaction. It is therefore useful to consider how the payments made by a licensee or purchaser are treated for South African tax purposes.

A royalty, fee or other obviously revenue form of expenditure paid for the licensing of a patent or other form of specified property, or for the provision of technical services, will be deductible in full from the gross income of the party making the payment, provided the property is used, or the instruction is received, in the production of income[74] and (where the payer is carrying on a trade) that the expenditure is incurred wholly and exclusively for the purposes of the trade.[75]

If a person is licensed the use of a patent or other specified property in consideration of a lump sum payment, he will be entitled to amortize the payment on a straight-line basis over the intended period of use of the property, or over 25 years if that is shorter.[76] Similar principles apply where the South African enterprise acquires the property outright in consideration of a capital sum.[77]

One important qualification needs to be made. If the expenditure, whether it be the purchase price of property, royalties, or fees for technical services, is incurred in South Africa it is deductible, provided it meets the other conditions of deductibility, as of right; but where it is incurred outside the Republic the allowance of a deduction is within the Revenue's discretion.[78] While this discretion would normally be exercised favorably to the South African taxpayer, so long as he could demonstrate the genuine commercial nature of the transaction, it is possible that a conflict may arise on occasion between the South African party's wish for certainty on the question of deductibility and the foreign party's desire to escape attribution of his income to a South African source.

*Collection of Tax from Non-Residents*

The tax on royalty and other payments made to an individual who is not resident in South Africa, or to a corporation which is not registered, managed or controlled there, for the licensing of patents, designs, trademarks, copyright and secret processes, or for the imparting of know-how in connection with the use of such property in South

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[74] § 11 (a).
[75] § 23 (g).
[76] § 11 (f)(iii) and (iv).
[77] § 11 (gA)(iii).
[78] § 11 (b).

Africa, is collected by a withholding procedure.[79] The person making the remittance to the foreign payee is required to withhold tax, calculated on an amount equal to 30 percent of the remittance, at the rate of tax applicable to corporations, and to pay it to the Revenue within 14 days. The foreign enterprise is therefore effectively allowed a deduction of 70 percent against gross income so that (the rate of tax on corporate profits at present being 40 percent) there is an effective withholding tax at the rate of 12 percent on royalties or like payments accruing to non-residents.

The foreign payee is not relieved by reason of the withholding procedure from making annual returns to the South African Department of Inland Revenue of income received from sources within South Africa and of expenditure claimed as deductible. This follows from Section 66 under which all "persons liable to taxation" (defined so as to include "any company which derived gross income during the year of assessment") are required to file tax returns. "Company" is in turn defined in the Act so as to include "any association incorporated or registered outside the Republic which . . . derives income from any source within or deemed to be within the Republic."[80]

Foreign corporations deriving income, such as royalties, from a South African source, therefore clearly have to file returns. The purpose of this requirement is apparently to ensure that such corporations satisfy the criteria which qualify them for the deduction of 70 percent of the royalty. For the purposes of the withholding provision, whenever a payment is made to a payee having an address outside the Republic the payer has to apply the withholding procedure.[81] Accordingly, without having its status tested by the furnishing of a return, a corporation which, though registered, managed or controlled outside South Africa, is in fact carrying on business within the Republic, and in whose hands the royalties may possibly be South African source income independently of the provisions of Section 9 (1) (b), could obtain a more favorable deduction than was actually allowable in the circumstances. The withholding tax is a final tax, therefore, in the case of a corporation registered, managed or controlled outside South Africa in whose hands the royalty or other

[79] This is provided by § 35 and it only applies when such payments are *deemed* to be derived from a South African source by virtue of § 9 (1) (b). Accordingly, where payments of that nature are South African source income under the general principles (e.g. because the payee is carrying on a business in South Africa, as a result of which the payments arise) the withholding procedure will not apply and the tax will be levied by direct assessment.

[80] § 1.

[81] § 35 (2)(a)(ii).

consideration is deemed by Section 9 (1) (b) to be South African source income; but if the income is South African source income under the general source principles, for example if the foreign licensor is carrying on business in South Africa through a branch, so that it is not necessary for Section 9 (1) (b) to operate, the withholding tax will be a provisional tax only and will be adjustable following submission of the tax return.

*Summary*

In the light of the foregoing discussion it is possible, subject to the impact of double taxation agreements, to state in a series of propositions the South African tax position of the foreign enterprise which exploits its industrial or intellectual property in South Africa, or which provides know-how to a South African enterprise.

(1) When a foreign proprietor of a patent, design, trademark, secret process or (in certain circumstances) copyright licenses its use in South Africa, whether to a South African resident or not, the consideration for the license, whether it is in the form of a lump sum or royalties or both, will be liable to South African withholding tax at the rate of 12 percent, irrespective of where the contract is entered into.

(2) When a patent, design or trademark registered in South Africa is sold by its foreign proprietor, whether for a lump sum consideration or for royalties or both, the consideration will not be subject to South African taxes unless

(a) in the case of a lump sum sale, the vendor developed the property which it is selling in South Africa, and the sale is made as part of a business operation (as distinct from the realization of an investment) carried out by the vendor;

(b) in the case of a sale in consideration for the payment of royalties, the vendor developed the property which it is selling in South Africa.

The position in regard to the sale of a copyright is the same, except that the foreign vendor who is the first proprietor of the copyright sold is exempt from South African taxes on the consideration if the consideration is subject to taxation in a country other than South Africa.

(3) When a secret process, trade secret or technical know-how is sold by a foreign enterprise, or when a foreign enterprise furnishes technical instruction or services to another party, and the sale or instruction (as the case may be) is in connection with the use in

South Africa of a patent, design, trademark, copyright or secret process, formula or invention, the consideration derived by the vendor, whether in the form of a lump sum, fees or royalties, will be liable to South African withholding tax at the rate of 12 percent. This will be so whatever the residential status of the party to whom the know-how is imparted, and whether it is that party which uses the patent or other property in connection with which the know-how is imparted, or a third party which does so.

(4) When a foreign owner of a secret process or other know-how sells it to a South African concern, and the sale is unconnected with the use in South Africa of a patent, design, trademark, copyright or secret process, the consideration will not be taxable if the owner developed the know-how outside South Africa. Even if the know-how was developed in South Africa, a lump sum consideration will only be taxed in South Africa if the vendor, by such sale, is not sterilizing an income-producing asset so as to exclude itself from the South African market, but is merely adopting the most effective way open to it of exploiting the know-how.

(5) When a foreign enterprise furnishes technical instruction or services to a South African concern, and such instruction is unconnected with the use in South Africa of a patent, design, trademark, copyright, or secret process, the fee, royalty or other consideration derived by the foreign enterprise will be liable to South African taxation only if the instruction and services are imparted and rendered substantially in South Africa.

(6) In cases where receipts of the nature referred to in paragraphs (2), (4) and (5) are taxable in South Africa, the withholding tax of 12 percent would not apply. The foreign recipient would therefore have to file a return and attempt to have part of its expenditure attributable to the receipts allowed as a deduction. The taxable portion of the receipt will be taxed at the rate of 40 percent.

## Impact of Double Taxation Conventions

South Africa has entered into comprehensive agreements for the avoidance of the double taxation of income with the United States, Canada, United Kingdom, Sweden, Switzerland, Rhodesia, and with a number of former British colonies in Africa, with whom treaties were entered into before their independence.[82] The treaties with the first five mentioned countries will be considered here.

[82] Under prevailing political conditions, the author understands that only the treaties with Lesotho, Botswana and Swaziland are actively implemented.

*United States*

The treaty between South Africa and the United States does not relieve royalties (which are defined so as to include "royalties for the use of, or for the privilege of using, patents, copyright, secret processes and formulae, goodwill, trademarks, trade brands, franchises and other like property") [83] derived from a South African source by a U.S. resident from South African taxes. Consequently royalties received by a U.S. resident from the licensing of patents and like property (including secret processes) for use in South Africa are subject to South African withholding tax at the full rate of 12 percent.

Some difficulty is caused by the language of Article IV (2) of the treaty, which is in the following terms:

> The Union[84] of South Africa in imposing its taxes shall exempt from such taxes and shall not take into account in the determination of such taxes income derived from sources within the United States of America in accordance with the income tax laws of the Union in effect on the day of entry into force of this Convention.

For example, the editors of one of the leading loose-leaf service volumes on South African taxation[85] suggest that, having regard to the decision in the *Millin* case[86] "the income flowing to a resident of the United States of America from the grant of permission to use any patent in South Africa is derived from a source in the United States of America and, in terms of Article IV of the Agreement, should be exempted in South Africa in spite of the provisions of para. (g) of the definition of 'gross income' in s. 1 and in spite of s. 9 (1) (b)."[87]

This statement is, in the writer's understanding, incorrect. As of July 1, 1946, when the treaty became effective, the Income Tax Act then in force in South Africa contained a provision[88] corresponding to the present Section 9 (1)(b). The effect of that provision was to override partially the application of the *Millin* case inasmuch as it required the consideration accruing from the licensing of patents and other like property for use in South Africa to be treated as being derived from a South African source wherever the licensed property was developed or the license contract was entered into. Consequently,

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[83] See art. II (j).

[84] Now the Republic: *supra* note 1.

[85] "Law and Practice of South African Income Tax," *Service and Statutes Volume* (Butterworths), para. [369 a].

[86] Millin v. C.I.R., 3 S.A.T.C. 170. See p. 170 above.

[87] The relevant parts of these provisions are set forth on pages 181 and 175-176 above, respectively.

[88] The Income Tax Act 1941, § 9 (1) (a) *bis*.

in 1946, when a United States licensor received royalties from the South African licensee of his patent, the royalties were attributed to a South African source notwithstanding that the licensor may have developed the patented process in the United States (a fact which, if the *Millin* case had been applied, may have resulted in the royalties being treated, for South African tax purposes, as United States source income). It follows that, in considering what, for the purposes of Article IV (2) of the U.S./South African treaty, were "the income tax laws of the Union" of July 1, 1946, the predecessor of the present Section 9 (1) (b) must be taken to have overridden the application of the *Millin* case, wherever the two were in conflict, and the same would be the case today.

However, a matter of importance to the United States licensor is the fact that the language relating to "the imparting of knowledge" which now appears in Section 9 (1) (b) was not introduced into the South African legislation until 1961,[89] and that there was no such language at the time the treaty with South Africa came into force on July 1, 1946. Prior to 1946 there had existed, since 1943, language deeming amounts derived from the granting of permission to use patents, designs, trademarks, copyrights and similar property in the Republic (then the Union) to have arisen from a South African source.[90] Consequently the *licensing* of secret processes and other forms of know-how which are considered by the Secretary for Inland Revenue[91] to be property of a similar nature to patents and the other specified forms of property, by a United States resident for use in South Africa will give rise to South African source income which will not be relieved by the treaty. But the consideration for any imparting of know-how other than the licensing of secret processes (e.g., the outright sale of know-how or the furnishing of technical instruction) will, provided the know-how was developed outside South Africa so that the *Millin* case may be relied on, be free from South African taxes by virtue of Article IV (2), even though the know-how is imparted in connection with the use in South Africa of a patent or like property. This is subject to one qualification. If the imparting of know-how can be regarded by the South African authorities as the rendering of services, then, if the services are substantially rendered in South Africa, a South African source will be attributed to the consideration,

[89] By § 6, Act 80 of 1961.

[90] Such language was first enacted by § 3 of Act 26 of 1943.

[91] It would be more accurate to say "which was considered by the Commissioner for Inland Revenue as of July 1, 1946" but for practical purposes the practice followed by the Revenue then and now is believed to be the same.

and will have been so attributed on July 1, 1946.[92] The consideration for such services would, however, be regarded as "industrial or commercial profits" and would be free from South African taxes under Article V (1) of the treaty unless they are allocable to a permanent establishment maintained by the U.S. enterprise in South Africa.[93]

*Canada*

The treaty between South Africa and Canada does not relieve royalties derived from a South African source by a Canadian enterprise from South African taxes. The treaty contains the customary exemption from tax in the source country of industrial and commercial profits accruing to an enterprise of the other country, unless attributable to a permanent establishment maintained by that enterprise in the source country.[94] Since royalties (though the term is not defined in the treaty) are specifically excluded from classification as industrial and commercial profits,[95] it would follow that royalties derived from the licensing of patents and related property, and from the provision of know-how in connection with the use of such property, are subject to South African withholding tax at the full rate. However, earnings derived from the provision of technical assistance, assuming such earnings are South African source income under the general principles concerning source, would be regarded as commercial profits. The definition of permanent establishment is broadly in line with that contained in the treaty with the United States.[96]

*United Kingdom*

Under Article XI of the new treaty with the United Kingdom[97] royalties derived by a United Kingdom resident from a South African source are exempt from South African taxes. Royalties are defined in the Article so as to mean "payments of any kind received as a consideration for the use of, or the right to use, any copyright . . .

[92] See discussion at p. 180 above.

[93] The term "permanent establishment" includes branches, offices, agencies and other fixed places of business, but it does not include a subsidiary corporation (art. II (d)).

[94] Art. III (l).

[95] Art. II (1) (i).

[96] See Art. II (1) (j).

[97] The treaty was signed on November 21, 1968, and became operative, as respects South African taxes, with effect from March 1, 1968.

patent, trademark, design or model, plan, secret formula or process, or for the use of, or the right to use, industrial commercial or scientific equipment, or for information concerning industrial, commercial or scientific experience."

The exemption cannot be claimed by a United Kingdom enterprise which carries on business through a permanent establishment in South Africa with which the right or property giving rise to the royalty is effectively connected.[98] The term "permanent establishment," though given a more elaborate definition than in the treaty with the United States, has broadly the same import.[99]

It should be noted that income derived by an enterprise from the furnishing of the services of employees or other personnel is treated as industrial or commercial profits, which will be liable to South African tax in full if it can be attributed to a permanent establishment conducted by the United Kingdom enterprise.[100] The communication of know-how frequently involves the services of the licensor's personnel being made available for the instruction of the licensee's technicians. It would seem that, provided payment is expressed to be made for the information communicated, and is not related to the services of the licensor's employees, the consideration will be treated as a royalty and not as a payment for services.

*Sweden*

Under Article VIII of the treaty with Sweden a royalty (which covers "any royalty or other amount paid as consideration for the use of, or for the privilege of using, any copyright, patent, design, secret process or formula, trademark, or other like property") derived from a South African source by a Swedish enterprise which is not engaged in trade or business in South Africa from a permanent establishment there, is relieved from 50 percent of the South African tax which would otherwise be imposed on the roaylty. The effective withholding rate is therefore reduced to 6 percent. Royalties in respect of copyright derived by a Swedish enterprise from a South African source are exempt from South African taxes altogether.

The definition of permanent establishment has, broadly speaking, the same features as the definitions in the other treaties which have been considered.[101]

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[98] Art. XI (3).
[99] Art. IV.
[100] See art. VI (1) and (6).
[101] See art. II (1) (i).

*Switzerland*

The treaty with Switzerland is the most recent one entered into by South Africa, and is based on the model treaty of the Organization for Economic Cooperation and Development. The treaty has the effect of exempting from South African taxes royalties arising in South Africa and paid to Swiss residents.[102] The term royalty covers "payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph or television films, any patent, trademark, design or model, plan, secret formula or process, or for the use of, or the right to use, industrial, commercial, or scientific equipment, or for information concerning industrial, commercial or scientific experience." The exemption does not apply if the Swiss enterprise has a permanent establishment in South Africa with which the right of property giving rise to the royalty is effectively connected.[103] If there is such a permanent establishment royalties are treated as business profits and so much of the royalties as are attributable to the establishment are subject to South African withholding tax. The rate of tax would be subject to adjustment, in accordance with Section 35 of the Act, following the submission of a tax return by the Swiss resident, if it appeared from the return that the royalties were South African source income independently of their being deemed to be so by Section 9 (1) (b) of the Act.

For the purpose of the treaty a Swiss resident is a person (including a corporation) who is liable to taxation in Switzerland by reason of residence, domicile or whatever criterion of taxability is applied by Swiss law.[104]

## Conclusion

The main feature which emerges from this survey is the favorable climate which exists in South Africa, through the generous deductions allowed to both licensor and licensee, for the exploitation by overseas enterprises of their industrial property and know-how. It must be added, however, that owing to the discretionary power which the legislation gives the Secretary for Inland Revenue to treat other

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[102] See art. XII (i).
[103] See art. XII (3).
[104] See art. IV (1).

property, not specified in the Act, as being of a similar nature to patents, designs, trademarks and copyrights, the tax status of payments for know-how is not altogether clear to the legal adviser of the foreign licensor, who may not be aware of the attitude adopted by the Revenue. It is to be hoped that the status of know-how will be clarified by the amending legislation which one would expect to follow the report of the recently-appointed commission of inquiry into the monetary and fiscal policies of the Republic.

# Some Aspects of Antitrust-Unfair Competition Interaction: Trade Symbol Franchising*

RICHARD F. DOLE, JR.**

EVERYONE IS FAMILIAR WITH the shenanigans of campus activists. However, the University of Iowa may soon be the first university to be sued by its students for violation of the Sherman Act.[1] Iowa and a number of other Big 10 institutions have recently raised tuition. The Iowa student body president has discovered that the tuition increase was preceded by a meeting of Midwestern university deans. In a press release reminiscent of the Antitrust Division the student body president has announced:

> We are seeking the minutes of the meeting in order to determine whether these deans have conspired to increase tuition in violation of the Sherman Antitrust Act.[2]

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* This paper is based on a report delivered to the Thirteenth Annual Public Conference of The PTC Research Institute held June 5-6, 1969.

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[1] *Cf.* Marjorie Webster Junior College, Inc. v. Middle States Ass'n of Colleges & Secondary Schools, Inc. BNA ATRR 420:A-19 (D.D.C. 1969), in which higher education was considered to be a "trade" subject to the Sherman Act at least when conducted by a proprietary school.

[2] *Daily Iowan*, p. 1, col. 2 (May 29, 1969).

I imagine that at least some of our university administrators would prefer an old-fashioned riot to this sophisticated student harassment!

Just as university administrators can avoid problems by listening to their students, businessmen can avoid problems by listening to the persons charged with administration of the antitrust laws. It is noteworthy that within a period of four months several Federal Trade Commission personnel, including two Commissioners, have given pointed warnings that trade symbol franchising is subject to antitrust proscriptions.[3] Misrepresentations to potential franchisees, restrictions placed upon existing franchisees' operations, and the terms on which existing franchises can be cancelled have been highlighted as areas of special concern.[4] Although all three subjects are important, the following discussion concerns the validity of restrictions placed upon existing franchisees. Recent Supreme Court decisions that are pertinent to this issue include *United States* v. *Sealy, Inc.*,[5] *United States* v. *Arnold, Schwinn & Co.*,[6] *Fortner Enterprises, Inc.*, v. *United States Steel Corp.*,[7] and *FTC* v. *Texaco, Inc.*[8]

Sealy was an "umbrella corporation" which franchised independent bedding manufacturers to make and sell bedding products in exclusive trade territories. Because the Sealy territorial allocations were in substance horizontal and "part of an 'aggregation of trade restraints' including unlawful price-fixing and policing,"[9] the Supreme Court invalidated the territorial restraints on the franchisees' sales activities.

The legality of horizontal territorial restrictions in the absence of illegal price-fixing was expressly left open in *Sealy*.[10] However, in *United States* v. *Serta Associates, Inc.*,[11] a case factually similar to *Sealy*, the Supreme Court has recently affirmed *per curiam* a district court opinion which interpreted *Sealy* to mean that horizontal territorial allocations are per se unlawful when accompanied by any other antitrust violations.

*Serta* should give pause to those who maintain that those trade symbol franchisors who do not supply their franchisees with products

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[3] Everett MacIntyre, "Franchising Developments" (May 8, 1969); James Nicholson, "Some Observations and Reservations About Franchising" (April 26, 1969); Rufus Wilson, "Antitrust Policy and Franchising" (February 11, 1969).

[4] *Id.*

[5] 388 U.S. 350 (1967).

[6] 388 U.S. 365 (1967).

[7] 394 U.S. 495 (1969).

[8] 393 U.S. 223 (1968).

[9] *Supra* note 5, p. 357.

[10] *Id.*

[11] 1968 Trade Cas. ¶ 72,543 at 85,886 (N.D. Ill. 1968) (*dictum*), *aff'd per curiam*, 393 U.S. 534 (1969).

can readily impose territorial restrictions on their franchisees which go beyond designation of areas of primary sales responsibility.[12] *Serta* indicates that exclusive horizontal territorial allocations will be highly vulnerable to invalidation even though a restraint on the resale of a product previously sold by a franchisor is not involved.

Nor should the presence of a trade symbol license make a difference. The obligation of a trade symbol licensor is to control the nature and quality of the goods or services on which his licensees use a trade symbol.[13] This obligation does not require control of the licensees' trade territories.[14]

Furthermore, *United States* v. *Arnold, Schwinn & Co.*[15] raises questions concerning certain vertical territorial restrictions by trade symbol franchisors. *Schwinn* held that it is ordinarily a per se violation of the Sherman Act for a businessman to impose vertical territorial or customer restrictions on the resale of consumer goods that are sold to distributors and dealers.[16] An FTC official has recently warned that territorial restraints on the sale of consumer products made from ingredients sold to franchisees by their franchisors also fall within the *Schwinn* rule.[17] On the other hand, the Supreme Court has indicated that the *Schwinn* per se rule is inapplicable to a newcomer attempting to break into a market and to a failing company.[18] These exceptions should offer a temporary antitrust shield to vertical territorial restraints imposed by fledgling and foundering franchisors regardless of whether those franchisors sell products to their franchisees.[19]

A trade symbol franchisor which does not sell products to its franchisees will not run afoul of the *Schwinn* per se rule. However, this does not mean that vertical territorial restrictions can be utilized with impunity. If there is no apparent business reason for the franchisor to

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[12] See, *e.g.*, Pollock, "Alternative Distribution Methods After Schwinn," 63 *N.W. L. Rev.* 595, 601-02 (1968). An area of primary sales responsibility is an area which a franchisee must exploit before he can solicit business in other areas. R. Dole, *Territorial Trademark Rights and the Antitrust Laws* (Michigan Legal Publications 1965).

[13] §§ 5, 45, 60 Stat. 429, 443 (1946), 15 U.S.C. §§ 1055, 1127 (1964).

[14] Dole, "The Interplay of Trade Symbol Protection and the Antitrust Laws," *IDEA*, Vol. 12, Conference No. (1968), pp. 146, 149-50.

[15] 388 U.S. 365 (1967).

[16] *Id.* at pp. 377-81. The Court acknowledged that exceptions might exist if the defendant were a newcomer trying to break into or to stay in a market or were a failing company. *Id.* at p. 374.

[17] Rufus Wilson, "Antitrust Policy and Franchising," 7 (February 11, 1969).

[18] *Supra* note 15, at p. 374.

[19] See Panel Discussion, "Orderly Marketing, Franchising and Trademark Licensing: Have They Been Routed by Schwinn and Sealy?", 1968 CCH Antitrust Law Symp. 27 at 71-72 (remarks of Donald Turner).

implement the restrictions independently, there may be ground for an inference that the restrictions were established at the instance of the franchisees and are in substance horizontal restraints subject to the *Sealy* principle.[20]

A trade symbol franchisor can fulfill its obligation to control the nature and quality of its franchisees' goods or services in several ways. It may, for instance, sell its franchisees components of a product identified by a trade symbol, or require the purchase of product elements from designated suppliers, or direct the purchase of product ingredients which meet certain specifications.

In accordance with the precept that the most readily justifiable restraint is the least restrictive alternative,[21] antitrust policy favors the utilization of specifications for product components wherever possible.[22] In *Teleflex Indus. Prods., Inc.,* v. *Brunswick Corp.,*[23] a recent district court decision, the court, for example, ordered the defendant in a private antitrust suit to formulate specifications for a product with the adequacy of the specifications to be tested at trial. The particular defendant required the purchase of an instrument panel in conjunction with a boat propulsion system because difficulties with the monitoring instruments could lead to engine failure.

*Teleflex,* which has already won the support of one FTC Commissioner,[24] is ordinarily a reasonable interpretation of the antitrust laws.[25] However, if a trade symbol franchisor establishes that the items which a franchisee is required to purchase are part of a trade secret, specifications which would involve disclosure of the secret should not be required.[26] In this situation, a person attacking the failure to supply specifications must either disprove the existence of the trade secret, by for example showing that the franchisor's know-how is in fact common knowledge, or demonstrate discovery of the trade secret by such lawful means as reverse engineering.

Similarly, if the items that a franchisee is required to purchase are the subject of a valid patent or copyright, specifications should not be required. Specifications are meaningless in this situation unless a

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[20] *Cf.* Interstate Circuit, Inc., United States, 306 U.S. 208 (1939).

[21] United States v. Addyston Pipe and Steel Co., 85 F. 271, 282-83 (6th Cir. 1898) (*dictum*), modified on other grounds, 175 U.S. 211 (1899).

[22] International Business Machines Corp. v. United States, 298 U.S. 131 (1936).

[23] 293 F. Supp. 106 (E.D. Pa. 1968).

[24] Everett MacIntyre, "Franchising Developments" (May 8, 1969), pp. 5-6.

[25] See Eckmann, "Antitrust Problems in Trademark Franchising," 55 *Trademark Rep.* (1965), 835, 844-46.

[26] See Carvel Corp., Dkt. 8574, CCH FTC Complaints, Orders, and Stipulations ¶ 17,298 (1965).

patent or a copyright license can be obtained. Use of the subject of a valid patent or copyright without a license naturally constitutes patent or copyright infringement. It can also deceive the public if a trade symbol is used in the absence of the subject of a patent or copyright with which the symbol has become identified.[27]

Where a court or an administrative agency can reasonably require an attempt to formulate specifications, several recent decisions coalesce to make the feasibility of the specifications a critical matter. In *Fortner Enterprises, Inc.,* v. *United States Steel Corp.,*[28] for example, the Supreme Court eased the burden of proving an illegal tie-in. A tying arrangement is, of course, a requirement that a purchaser buy another item whenever he purchases a particular item. A tying arrangement has been considered a per se violation of the Sherman Act where there is little or no justification for the arrangement, the party using the arrangement possesses sufficient economic power with respect to the tying item to appreciably restrain competition in the market for the tied item, and a not insubstantial amount of interstate commerce is affected.[29] In *Fortner* the Court declared that a tie-in violative of the Sherman Act can also occur where economic power over the tying product falls far short of market dominance and exists only with respect to some buyers in the market as long as the total amount of commerce involved is not insubstantial.[30]

The significance of *Fortner* is illustrated by considering its impact on *Susser* v. *Carvel Corp.,*[31] a Second Circuit decision which held that a trade symbol license could be a tying item for items identified by the trade symbol. Notwithstanding this acknowledgment, a majority of the Second Circuit panel found no illegal tie in *Susser* because the Carvel trade symbol did not possess market dominance and also because the amount of commerce involved in Carvel's dealings with the individual treble-damage plaintiffs was insubstantial.[32] However, the Second Circuit majority conceded that the Carvel trade symbol confered a competitive advantage on the Carvel franchisees and that an

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[27] See Lewis v. Trinklein, 304 Mich. 542, 8 N.W.2d 631 (1943).

[28] 394 U.S. 495 (1969).

[29] Northern Pac. Ry. Co. v. United States, 356 U.S. 1 (1958).

[30] *Supra* note 28, at pp. 498-504.

[31] 332 F.2d 505 (2d. Cir. 1964), *cert. dismissed,* 381 U.S. 125 (1965). Carvel Corp., Dkt 8574, CCH Complaints, Orders, and Stipulations ¶ 17,298 (1965), in which the Federal Trade Commission held that a trade symbol could not conceptually constitute a tying item with respect to items identified by the trade symbol, is best understood as turning on the absence of record evidence of a significant anticompetitive effect. Dole, *supra* note 14, at 152-53.

[32] Susser v. Carvel Corp., 332 F.2d 505, 518-21 (2d Cir. 1964), *cert. dismissed,* 381 U.S. 125 (1965).

aggregate of as much as a million dollars in tied items may have been affected by the restraint.[33]

Under *Fortner* this evidence could be sufficient to establish an illegal tie unless the franchisor could show that the promulgation of specifications either was not necessary, as previously discussed, or was not practicable.[34] Notwithstanding the fact that Section 5 of the Federal Trade Commission Act applies to incipient as well as to full-blown antitrust violations,[35] *Fortner* equates the invalidation of tying clauses by Section 1 of the Sherman Act, with resultant treble-damage liability, to the scope of Section 5.

*FTC* v. *Texaco, Inc.*[36] is another pertinent Supreme Court decision. *Texaco* invalidated an arrangement under which the oil company recommended that its independent dealers purchase tires, batteries, and accessories from B. F. Goodrich in return for the payment of a commission to Texaco by Goodrich. This arrangement was considered to transgress Section 5 of the Federal Trade Commission Act because Texaco had dominant economic power over its dealers, which was inevitably utilized to promote B. F. Goodrich products, and a not insignificant amount of commerce was affected.[37]

*Texaco,* like *Fortner,* makes it dangerous for a trade symbol franchisor which dominates its franchisees to encourage their purchase from a third party of items that are unrelated to the franchisor's obligation to engage in quality control. Many franchisors, of course, dominate their franchisees through such contractual devices as clauses which permit cancellation of a franchise on short notice without cause.[38]

*Texaco,* like *Fortner,* also seems applicable to sales of products by a

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[33] *Id.* at 519 and n.2.

[34] In Fortner, for example, the Court indicated that $190,000 was a not insubstantial amount of commerce. Fortner Enterprises, Inc. v. United States Steel Corp., 394 U.S. 495, 501-02 (1969).

[35] See James Nicholson, "Some Observations and Reservations About Franchising" (April 26, 1969), pp. 11-15. It is noteworthy that Carvel Corp., Dkt. 8574, CCH FTC Complaints, Orders, and Stipulations ¶ 17,298 (1965), in which the FTC substained several tying clauses in a trade symbol franchising context, was decided prior to FTC v. Brown Shoe Co., 384 U.S. 316 (1966), in which the Supreme Court reaffirmed the incipiency doctrine under § 5. L. G. Balfour Co., Dkt. 8435, CCH FTC Complaints, Orders ,and Stipulations ¶ 18,485 at 20,850-51 (1968).

[36] 393 U.S. 223 (1968).

[37] *Id.* at 226-31.

[38] Senator Philip A. Hart's Fairness-in-Franchising bill, which provides a damage remedy to franchisees who are cancelled out without notice or without cause, BNA ATRR 407: A-35 (April 29, 1969), is a response to this widespread practice. See BNA ATRR 405: A-17 (April 15, 1969) (remarks of Senator Hart).

franchisor to its franchisees.[39] Indeed, *Texaco* may reach further than *Fortner* in that its "coercion" rationale can be used to invalidate excessively one-sided terms in even ties that can be justified by a trade symbol franchisor's obligation of quality control. Commissioner Nicholson has expressed the view that charging exceptionally high prices for tied items may fall within this category.[40] Such prices may also be vulnerable under the Commission's recent suggestion that "unconscionable prices" are independent violations of Section 5 of the Federal Trade Commisssion Act.[41]

The increasing antitrust inroads on restrictions imposed on trade symbol franchisees may be moderated or even reversed by future changes in judicial and regulatory personnel. However, until a new regulatory emphasis asserts itself, trade symbol franchisors would be well-advised to review their franchise agreements and to ensure that the restrictions imposed on franchisees' operations are both justifiable and no more restrictive than necessary.

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[39] *But see* Analysis, "Franchising and Inherent Coercion," BNA ATRR 399: B-1 at B-3 (March 4, 1969).

[40] J. Nicholson, *supra* note 35, at 8-10.

[41] See *id.*, Leon A. Tashof, Dkt. 8714, CCH FTC Complaints, Orders, and Stipulations ¶ 18,606 at 20,955-56 (1968).

# The New French Patent Law

H. GEOFFREY LYNFIELD*

## HISTORICAL

THE NEW FRENCH LAW was passed by Parliament on January 2, 1968.[1] Following the issuance of the regulations the law came into force on January 1, 1969.[2]

The new law replaces the previous law which goes back to July 5, 1844 and has since been amended only in minor respects.[3] In fact, the

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[1] Law No 68-1 "for the promotion of inventive activity and for amending the legal provisions regarding patents of invention" published in *Journal Officiel de la République Française,* No. 68-2 (January 2, 1968).

[2] Décret No. 68-1100 du 5 décembre 1968 relatif aux demandes de brevets d'invention et de certificats d'utilité, a la délivrance et au maintien en vigueur de ces titres. (*Journal Officiel,* Dec. 7, 1968).

[3] A copy of the text of the French law of July 5, 1844 amended to include changes introduced up to the end of 1959 is reprinted in French in Moureaux and Weismann, *Manuel des Brevets d'Invention* (Paris: 1960).

An English text of the basic law of July 5, 1844 was published many years ago by the British Chartered Institute of Patent Agents. They also published the

1844 law retained many of the basic features of the original law of 1791.[4]

Thus, French law has remained virtually unchanged and unaffected by modern ideas and legislation for as long as 177 years. With the exception of pharmaceuticals, French patents were never examined as to novelty or patentability. The French Patent Office never had the power to refuse an application for any cause except in the event of formalities not being observed. For pharmaceuticals the novelty examination was introduced in 1960.[5] French patents thus were issued without guaranty of the government (sans garantie du gouvernement) and the letters "SGDG" had to be applied whenever marking an article with the French patent number.[6]

The French patent law is thus like one of those monumental edifices in the center of Paris which are being preserved as national monuments outwardly unchanged over the years and are being perpetually fixed up on the inside only in slightly minor respects. As French architecture has been copied all over the world, especially in countries which were once part of the French colonial administration, so the old French patent law has been copied in numerous countries and forms the basis of the laws of Belgium, Costa Rica, Cuba, Dominican Republic, Greece, Haiti, Italy, Luxembourg, Morocco, Paraguay, Poland, Rumania, Spain, Syria, Lebanon and Turkey.[7]

## Certificate of Utility

There are many changes under the new law which when fully in effect will up-date the French law. The new law includes several features not found in other laws but it is questionable whether these innovations are of any practical advantage to the inventor or applicant. Thus the new law in addition to the normal 20-year patents for inventions provides for a new type of protection known as Certificates of Utility or Utility Certificates (Certificats d'Utilité).[8] These Utility Certificates will be granted for all types of inventions other than

principal amendments. The text of the law in English including amendments up to November 1, 1949 appears in *Patent and Trademark Review,* Vol. 48 (1950), p. 184.

[4] Vojacek, *A Survey of the Principal National Patent Systems* (New York: 1936).

[5] Decree No. 60-507, of May 30, 1960.

[6] 1844 law art. 33.

[7] S. P. Ladas, *The International Protection of Industrial Property,* pp. 231-232. (Cambridge: Harvard University Press 1930).

[8] New law, art. 3.

pharmaceuticals for a period of six years from the date of filing of the application. These Utility Certificates are to be distinguished from German Utility Models (Gebrauchsmuster) which are obtainable only for inventions of a mechanical character which have three-dimensional shape and are movable.[9] On the other hand, French Certificates of Utility will be granted for example for chemical processes under circumstances to be discussed more fully below. The novelty requirements for patents also apply to Certificates of Utility. However, the provisions for examination in Articles 19, 20 and 21 of the new law do not apply. In order to keep Utility Certificates in force they are also subject to the payment of annual renewal fees in the same manner as patents.

An applicant for a patent may voluntarily convert his application into an application for a Certificate of Utility.[10] However, the reverse procedure is not possible and a Certificate of Utility cannot be converted into an application for a patent.

Further difficulty may arise in connection with Certificates of Utility which may not have been anticipated by the authors of the new law. The International (Paris) Convention provides that a person who has filed application for "a patent, or for the registration of a Utility Model, or of an industrial design, or of a trademark, in one of the countries of the Union . . . shall enjoy the right of priority."[11] There is no mention in this article of Utility Certificates and presumably it will be up to each individual country to determine under its own domestic laws whether a claim for Convention priority in respect of a French application for a Certificate of Utility will be recognized.[12]

## Subject-Matter Restrictions

The old law merely declared as non-patentable "schemes and combinations relating to credit and finance."[13] Further, patents were declared void if the patents referred to "theoretical or purely scientific

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[9] H. Geoffrey Lynfield, "German Utility Models," *JPOS*, Vol. 47 (1965), p. 374.

[10] New law, art. 19-4.

[11] Art. 4A (1) of the Paris Convention of 3/20/1883 for the Protection of Industrial Property.

[12] Of interest in this connection are the extensive discussions whether amendment of the Paris Convention should be effected to include Inventors' Certificates granted by the Soviet Union.

[13] 1844 law, art. 3-2.

principles, methods, systems and discoveries."[14] The new law sets out three categories of non-patentable subject matter:[15]

(1) Principles, discoveries and theoretical or purely scientific concepts;
(2) Creations having an exclusively ornamental character;
(3) Financial and accounting methods, rules for games and all other systems of an abstract nature adn, in particular, programs or series of instructions for the operation of a computer.

The reason for excluding computer (software) is that at the time the law was drafted the indications were that under the new U. S. law computer programs would also not be patentable.[16]

## Novelty Requirements

The novelty requirements are substantially unchanged under the new law and an invention is considered novel as long as it is not included in the state of the art.[17] The state of the art (l'etat de la technique) includes all that has been made available to the public in writing or by oral description or by public use anywhere in the world prior to the filing date of the application or prior to the Convention date if it has been claimed.[18] There are two unimportant exceptions to the absolute novelty requirement which was already to be found in the 1844 law:[19]

(1) Use by a third party within six months preceding the French filing date (not the Convention date) is not a bar if such use was effected without permission of the applicant;
(2) Publication at a recognized international exhibition.

Under the new law it will not be possible to claim subject matter which was claimed in an unpublished co-pending application of prior date.[20] However, the body of an unpublished prior application is not citable against a later application. France therefore does not go as far as the recently enacted laws in Sweden, Denmark, Norway and

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[14] *Id.*, art. 30-4.
[15] New law, art. 7.
[16] *Report of the President's Commission on the Patent System;* article in the *New York Times* of October 23, 1968, "Computers So Far Are Unpatentable."
[17] New law, art. 8-1.
[18] *Id.*, art. 8-2.
[19] 1844 law, art. 30.
[20] New Law, art. 12.

Finland[21] nor the Strasbourg Convention[22] signed under the auspices of the Council of Europe.

## THE NOVELTY EXAMINATION

The French Patent Office is introducing the novelty examination gradually[23] and has published a list of classes which are at present being examined.[24] At present, approximately one case in ten and all applications relating to pharmaceuticals will be subject to novelty examination. Depending on the pressure of work and the ability to handle further classes presumably at some future date, additional classes will be publicized as being subject to examination.

Shortly following filing, the French Patent Office will issue a letter advising the applicant that a particular application is being examined. The applicant has one month within which to reply and notify the Patent Office whether he agrees to the examination and to pay the examination fee. Alternatively the applicant can request a delay of examination for two years from the date of filing.[25] If at the end of two years the examination fee is not paid, the application will automatically be converted into a Certificate of Utility and will be granted for a six-year term.[26] If the application relates to a pharmaceutical, such conversion into a Certificate of Utility, however, is not possible and the application will presumably lapse if the examination fee is not paid within the prescribed period.

If the subject matter of the application does not fall within one of

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[21] The Nordic Patent Laws, Section 2:

> Everything made available to the public in writing, during lectures, by exploitation, or otherwise, shall be considered known. Further, the contents of a patent application filed in this country before the said date shall be considered known if the application becomes available to the public in accordance with the provisions of Section 22.

[22] Art. 4 (3) of the Conventions on the Unification of certain points of substantive law on patents for inventions:

> Any Contracting State may consider the contents of applications for patents made, or of patents granted, in that State, which have been officially published on or after the date referred to in paragraph 2 of this Article, as comprised in the state of the art, to the extent to which such contents have an earlier priority date.

[23] New law, art. 73-2.

[24] Arrête du 5 décembre 1968 déterminant les démandes de brevet d'invention et de certificat d'addition soumises a l'avis documentaire.

[25] New law, Reg. 35.

[26] *Id.*, arts. 19-4.

the examined categories, no examination fee is payable and the application will in due course be published subject to having met the usual formal requirements.

The novelty examination under the new French law will approximate the procedure followed for special pharmaceutical patents (BSM).

A novelty report is first obtained from the International Patent Institute at The Hague.[27] As a practical matter, the French Patent Office will send a copy of the application to The Hague and ask the International Institute to perform a novelty search. Much the same procedure was followed in the past for special pharmaceutical patents. The applicant will receive a report known as "avis documentaire" listing the art which is considered to be pertinent to the claims filed with the application.[28] However, the novelty report will not include a detailed analysis of the claims and will not indicate precisely how the various references apply to the features thus claimed. Thus the novelty report will differ from the type of report issued, for instance, by the German Patent Office where the examiner analyzes the claims in detail and applies the prior art to the claimed components.

Within a prescribed period of two months, the applicant can file observations on the novelty report and submit amended claims.[29] However, he need not do anything at this point. A second novelty report (avis documentaire) is then issued by the Patent Office and again the applicant has an opportunity to submit comments or amend his claims. However, no amendment of the specification is possible at this or any other time beyond the correction of purely clerical errors.

The application is then laid open to public inspection[30] unless it was previously published following the expiry of 18 months from the French filing date or from the Convention date, whichever is earlier.[31] Third parties, which need not show any interest within three months, can then submit observations and prior art which will be transmitted to the applicant who will within two months be permitted to file counter-observations and amend his claims.[32]

The novelty report is then established by the Patent Office in its

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[27] The International Institute of Patents at The Hague was created by diplomatic accord on June 6, 1947 concluded originally between France and the Benelux countries. Turkey, Monaco, Morocco, Switzerland and the United Kingdom subsequently adhered.

[28] New law, art. 20-1.

[29] *Id.*, Reg. 38.

[30] *Id.*, art. 20-22 and Reg. 39.

[31] *Id.*, art. 17.

[32] *Id.*, Reg. 41.

final form and the application is advertised in the *Official Gazette* as having been accepted. The art cited appears at the end of the specification in the form of the final report. Any third party can again inspect the entire docket following publication and even obtain a copy of the certified copy filed in support of the claim for Convention priority.

## Security Review

The new French law provides that an application cannot be divulged nor can it be used until at least five months have expired from the date of filing the application.[33] The authorization to disclose or use the invention can be obtained earlier if a special request is filed. On the other hand, if the subject matter of the application is of interest to the defense of the country, the permission to publish or use the invention can be extended for a period of one year from the date of the application at the order of the Minister of National Defense.[34] Provision is made for indemnification of the applicant if permission to publish is denied beyond the one year.[35]

These provisions do not distinguish between an application filed for the first time in France and an application which originated in a country outside France. Thus it would seem at first sight that the prohibition to publish or use the invention for five months from filing will also apply to an American applicant who files under the International Convention.

However, it is considered that the general prohibition of Article 25, which stipulates that the subject matter of a French application cannot be divulged nor freely exploited for five months from the date of filing of the applications, is impractical, and that there is full realization on the part of the French Administration that it cannot be enforced within its broad scope with regard to all applications.

Indeed, it was the opinion of some officials that this provision of the law can be safely disregarded since the French Administration is well aware that this law is broken daily in many cases, except in cases which concern French defense.

Unless in fact the invention concerns French defense, and disclosure of the invention would indeed be prejudicial to the security of France, there is no danger of any prosecution under this provision. This provision, and the similar provision existing under the old law

[33] *Id.*, art. 25.
[34] *Id.*, art. 26.
[35] *Id.*, art. 27.

under the French Decree of 1939, have never been enforced. On the other hand, this provision has to be considered together with Article 77 of the French Penal Code, whereby it is a criminal offense, punishable by 10 to 20 years of prison, to communicate to a person acting for a foreign power or enterprise, without prior authorization of the competent authority, an invention concerning national defense.

If there was a prosecution under Article 25 of the French Patent Law, which is extremely unlikely in cases not concerning national defense, the worst that could happen would be a fine of 3,000 French francs, unless, of course, the Penal Provision Concerning National Security (Article 77) of the Penal Code was also applied, in which case of course the penalties would be substantially more severe, as stated above.

The U. S. statute requires a license only in respect of an invention made in the United States. If the invention has been made abroad no license is required.[36]

Actually, Articles 24 to 27 of the new law do not introduce a new concept into the French Patent Law. The subject matter of these new articles was covered under the old patent law by a decree of October 30, 1935.[37]

The old regulations provided that inventions likely to be of interest to national defense could not be divulged except with express authorization before the expiration of an eight months' delay from the date of filing. Inventions involving the interests of national defense were never fully defined.[38] However, it has been the French Ministry of Defense's policy that it would consider all patents, no matter what their subject matter, as falling within this provision, except if the contrary had been stated by the Ministry of Defense. It therefore appears that the only change with regard to this matter is to reduce from eight to five months the period during which disclosure is not allowed without express authorization.

There is, however, one material difference between the old and the

[36] § 184 of the U.S. Patent Law (35 U.S. Code 184) reads:

> Except when authorized by license obtained from the Commissioner a person shall not file or cause or authorize to be filed in any foreign country prior to six months after filing in the United States an application for a patent or for the registration of a utility model, industrial design, or model in respect of an invention made in this country.

[37] Décret du 30 Octobre 1935 relatif aux brevets d'invention intéressant la Défense nationale. (*Journal Officiel*, Oct. 31, 1935, p. 11,511).

[38] Décret-Loi du 29 Novembre 1939 relatif aux inventions intéressant la Défense nationale (*Journal Officiel*, Dec. 10, 1939, p. 13,834; *R.J.O.*, Dec. 13, p. 13,924; Dec. 16, p. 13,970).

new regulations. Under the old regulations sanctions were provided under the penal procedure, if the provision of the decrees was not respected. Under the new law, no such sanctions have been provided. The conclusion, therefore, is that as far as patents are concerned, if the secrecy is not respected, there will be no consequences as to validity of the patent, and that it will not be possible to sue under the penal procedure.

## THE CLAIMS

The new French law eliminates the resumé practice under the old French legislation. A resume, in fact, recited in a series of numbered or lettered paragraphs the principal features of the invention. However, when it came to interpreting French patents, the specification as a whole had to be considered and every feature of a French case, if novel, carried with it protection even though such feature might not have been mentioned in the resumé. It was entirely up to a French court after having studied the prior art to determine the scope of protection. There was therefore invariably a great deal of ambiguity and indefiniteness in French patents which under the new law should be removed.[39]

The new law provides that apart from the usual description and drawings there must be "claims defining the scope of the desired protection."[40] The regulations give more details of what the claims should cover.[41]

Each claim comprises in principle:

(1) A preamble which recites the object to which the invention relates and, in case of need, its known characteristics;

(2) The technical characteristics together with particular novel element which in combination with the preamble determine the limits of the claim protection.

All claims may refer in the preamble to one or more preceding claims and comprise additional characteristics. Phrases such as "in combination with" or "separately" are prohibited.

It is to be expected that the French Patent Office will be strict on matters of unity. The reason for this is that the novelty searches are sub-contracted to the International Patent Institute at The Hague and

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[39] See A. R. Lawrence on "Interpretation of European Patent Specifications," *Chartered Institute of Patent Agents of Great Britain,* Vol. 53 (1961), p. C130.

[40] New law, art. 13.

[41] *Id.,* Reg. 8.

if more than one class has to be searched, the French Patent Office would be called upon to pay several fees to the IIB.

The unity requirements have in the past been strict for much the same reason for applications for BSM patents. Thus, a recent report from a French correspondent read as follows:

> The Examiner has noted that the definition of radical R is either a heterocyclic nucleus with 5 links comprising 1 or 2 heteroatoms or the phenyl radical possibly substituted. Consequently, the Examiner says it is not possible to establish the "Projet d'Avis Documentaire" (novelty search) and asks for limiting the invention to either the first or second definition of R and filing, if desired, a divisional application for the other definition of R.

One should therefore not attempt to claim in a French application unrelated subject matter. On the other hand, it is provided that there may be included in the same application claims for a product, application of the product, a process for the preparation of the product and special means for putting in operation of the process.[42] The law provides that:

> A patent can be issued only for one single invention or for a group of inter-related inventions which are unitary in character. Any application which does not comply with the provisions of the preceding paragraph must be divided within the prescribed term.[43]

In view of these unity requirements it would seem that German-type claims should be filed in France. Certainly British omnibus-type claims will not be permitted.

> Claims in defining the technical characteristics must not comprise general references to the description and drawings. On the other hand in case of need they may make reference to a drawing or a formula.[44]

All claims should refer in the preamble to the object to which the invention relates and, in case of need, to its known characteristics.[45]

German-type claims should meet this requirement as they spell out in the preamble the most pertinent prior art and confine the characterizing clause (that is the part following the words "characterized by or characterized into") the feature or features of novelty.

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[42] *Id.*, Reg. 9.
[43] *Id.*, Art. 14.
[44] *Id.*, Reg. 8.
[45] *Id.*, Reg. 8.

## EDUCATIONAL ACTIVITIES

*We are bringing the following paper on "evaluation of inventions" to the attention of our readers to provide information for those inventors who may require a substantial investment of sophisticated talent and facilities in the development of their inventions. The paper describes the evaluation procedures and experience of a leading development laboratory.*

# Evaluation of Inventions: Recent Experience of The Battelle Development Corporation

JOHN L. GRAY*

### INTRODUCTION

THE BATTELLE DEVELOPMENT CORPORATION IS a wholly owned nonprofit subsidiary of Battelle Memorial Institute and was incorporated in 1935. Battelle Memorial Institute is an international nonprofit research organization having four major laboratories in the United States and Europe, a number of smaller laboratories in other locations, and offices in most of the principal cities of the world. It has approximately 7,000 employees, and, during 1968, conducted approximately $125,000,000 of research supported by governmental and

* Mr. Gray is Vice President and General Manager of The Battelle Development Corporation, Columbus, Ohio.

industrial sponsors. The subject matter of this research covered the entire spectrum of the physical sciences and also included activities in the life and social sciences.

Since its inception in 1935, The Battelle Development Corporation (BDC) has engaged in the support of scientific research relating to new inventions which is usually conducted at the Battelle Laboratories, although significant amounts are conducted at universities and other organizations. After the initial high risk has been removed from the development and at an appropriate point in time, the invention is licensed to industry for finalization of the development, preparation of production prototypes, tooling and production, and ultimate marketing.

BDC considers inventions not only from the Battelle Laboratories but from about 25 universities with whom it has agreements, unsolicited ideas from individuals, and some inventions from industry. It evaluates the inventions from the standpoint of technical feasibility, marketability, and patentability and those that it chooses to fund are the subject matter of research and development programs. While BDC is best known for its development of xerography, the dry printing process which has been so successfully commercialized by Xerox Corporation, it also has developed a large number of other inventions and, of course, it has had some spectacular failures which could be expected in view of the nature of the pioneering activity in which it is engaged.

## Evaluation Procedures

The inventions evaluated by BDC number approximately 1,000 a year. The evaluation is supervised by a BDC manager located at each of the four principal laboratory locations of Battelle utilizing the technical, market and legal staff of the laboratory and augmenting this with consultants where necessary. Since the cost of evaluating approximately 1,000 inventions by BDC is about $300,000 annually, an attempt is made to reach a decision with respect to these inventions with the minimum investment possible. Consequently, initial evaluation usually is directed to patentability and the business and market aspects of the invention. Unlike a manufacturing organization where a proprietary position is not necessarily essential, BDC must have this proprietary position because the only way in which BDC can ultimately achieve the final manufacture of the invention is through some sort of licensing arrangement, since BDC does not, itself, engage in

manufacturing. Therefore, patentability is an essential criterion in its evaluation of an invention. Generally speaking, patentability and market information can be obtained much more cheaply than can technical information, although this is not always the case.

## Experience During 1967 and 1968

Set forth below is the experience of BDC during the years of 1967 and 1968. The sources of inventions are listed in the left column and the disposition of these inventions is shown for each of the years in question. While there have been some changes in the individual categories, it is interesting to note that approximately 2.5 percent of the inventions have been accepted for formal funding in each of the years reviewed.

INVENTIONS AND IDEAS SUBMITTED TO BDC

| | Inventions Submitted | Accepted Projects | Percentage |
|---|---|---|---|
| 1967 | | | |
| Battelle Laboratories | 163 | 9 | 5.5 |
| Universities | 85 | 3 | 3.5 |
| Individuals | 731 | 10 | 1.4 |
| Industries | 74 | 3 | 4.0 |
| Totals or Averages | 1053 | 25 | 2.4 |
| 1968 | | | |
| Battelle Laboratories | 118 | 10 | 8.5 |
| Universities | 109 | 4 | 3.7 |
| Individuals | 495 | 4 | 0.8 |
| Industries | 50 | 1 | 2.0 |
| Totals or Averages | 772 | 19 | 2.5 |

As might be expected, the highest rate of acceptance was for those inventions received from the Battelle Laboratories. While the university acceptance rate for inventions is slightly lower than for inventions received from industrial organizations during 1967, some of the most exciting inventions received by BDC in recent years have been received from universities. Included among these are the inventions of Dr. James P. Romualdi of Carnegie-Mellon University on Wirand* Concrete and the basic invention on holography of Emmett N. Leith and Juris Upatnieks from the University of Michigan.

* Trademark of The Battelle Development Corporation.

As also might be expected, the lowest acceptance rate is found in the category of inventions received from individuals. Nevertheless, we must look at all of these inventions very carefully because it is always possible that an important invention will be found among those that are submitted in this fashion. The xerography inventions of Chester A. Carlson, of course, were in this category.

### Extrapolation Based on Past Experience

If past experience is any guide, the inventions which have been identified for the years 1967 and 1968 will follow a course similar to their predecessors. Approximately half of these inventions will be abandoned. This is usually because of inability to demonstrate technical feasibility; but sometimes it is because of changes in economic factors, such as technological obsolescence. In some cases, prior art, not previously found, will so weaken the patent position that it is unwise for BDC to proceed. As to those inventions that do reach the stage where an appropriate arrangement can be made with industry, BDC will have invested in each of these inventions approximately $50,000 to $500,000, and it may have taken two years to ten years to reach that stage.

## STUDENT PAPERS

By making available student papers, students will receive an incentive and our readers will appreciate the evidence of scholarly development in the fields of interest. These papers are carefully reviewed by the Editorial Committee and other specialists, and helpful suggestions are made to the students as part of the educational function of *IDEA*. The Research Institute invites educational and research institutions to submit informative student manuscripts on the patent, trademark, copyright, and related systems.

# Foreign Patenting Cost Study*

MARTIN P. HARTMAN

SUMMARY

THIS STUDY COMPRISES AN ANALYSIS of the cost components involved in the various phases of international patenting: filing, prosecution and maintenance of foreign patent grants. Alternative approaches to conducting these phases are reviewed, together with an indication of some representative costs. Using the draft Patent Cooperation Treaty as an example, the usefulness of this study in assessing the benefits of

* This paper, chosen to represent The National Law Center of The George Washington University, received the Patent Office Society Student Award for 1969. The Patent Office Society Student Award program is conducted annually under the auspices of The PTC Research Institute. The paper was submitted by the author in partial fulfillment of a course in patent law.

The author is associated with the Office of International Patent and Trademark Affairs, U.S. Patent Office. The views presented herein do not necessarily reflect those of the U.S. Patent Office.

various proposals currently under active consideration in the international patent scene is suggested.

## INTRODUCTION

THE FOLLOWING STUDY CONSIDERS the elements of cost involved in obtaining and maintaining foreign patents. Along with the necessity of conducting multiple and redundant national proceedings, and of adhering to diverse national formalities, the cost of international patenting has been an important source of criticism of current international practice. With our increasing foreign trade involvements, the cost grows. In 1967, Americans sought protection for 23,000 of their inventions by filing 115,000[1] foreign applications; projections for the next couple of years anticipate that the annual rate of filing of foreign patent applications by Americans will top 150,000. Based on a recently reported estimate that each such filing represents an average outlay of from $700 to $1400,[2] the yearly cost will be in the range of $100 to $200 million. This represents a considerable investment, yet one which is required if the U.S. inventor is to assure himself of the necessary legal protection for his inventions abroad.

This study is predicated on the belief that only through an understanding of the investments necessary to achieve foreign patenting will the American entrepreneur be in a position to maximize, under current conditions, his protection for the inventions generated here at home. Certainly an awareness of the various alternative approaches available will provide him with greater flexibility in managing his programs. A corollary benefit is that understanding the reality of today's costs will provide a reference level against which alternatives to alleviate the "worldwide patent crisis"[3] can be measured.

Particular fees developed in the study are merely illustrative average industry values based on informal discussions with patent counsel. They are intended only to provide ballpark estimates of the cost elements under discussion rather than estimates of the costs one could

[1] Industrial Property Statistics for the Year 1967, *Industrial Property* (December 1968), Monthly Review of the United International Bureaux for the Protection of Intellectual Property (BIRPI).

[2] Thomas Ritscher, "Foreign Patent Applications and Patents," *IDEA*, Vol. 13, No. 1 (Spring 1969) at p. 136.

[3] "Commissioner's View: Proposed Patent Treaty Is Giant Step Forward," *International Commerce* (August 5, 1968).

anticipate in a given case. Where possible an effort has been made to normalize costs to those applicable to the average size patent application[4] filed in our Patent Office. However, many other factors, such as complexity, volume of business provided an associate, et cetera, necessarily have an effect on the fee in any given instance. This is especially the case in the cost of prosecution.

All of the following discussion assumes the existence of a standard size application already filed in the U.S. Patent Office. Generally, the application will be filed for the American inventor through a registered patent attorney or agent to be referred to hereafter as the U.S. prosecuting attorney. If the inventor is a scientist or engineer in the employ of a corporation, the U.S. prosecuting attorney may be patent counsel employed by the corporation who will prepare the application and conduct the proceedings before the U.S. Patent Office. The elements of cost to be considered here are only those involved in the patenting abroad of the subject matter of the invention represented by this U.S. patent application. Furthermore, the study considers only out-of-pocket costs. The value of the time of the "inhouse" counsel in overseeing and conducting the foreign patenting operations is not included.

Monetary outlays for foreign patenting can be categorized into one of three convenient groups. First is the cost of merely getting a patent application on file in each of the countries where patent protection is sought (The Filing Phase). Second is the cost involved in the prosecution of the foreign applications, now on file, to the issuance of the foreign patents (The Prosecution Phase). (Of course, the expense of this phase will be significant only in countries conducting patent examination proceedings where the issuance of the grant is not *pro forma,* as in registration countries.) The third is the important area of preserving the investment in the patent by the payment of recurrent, usually annual, renewal fees or taxes (The Maintenance Phase). This area will also include other steps necessary to maintain the patent, e.g., periodic "working," where required.

## The Filing Phase

A U.S. patent attorney or agent who conducts the U.S. patent prosecution has open to him at least three modes of proceeding to get foreign applications corresponding to the U.S. case on file abroad:

[4] Average size application filed in U.S. Patent Office in 1968: 12 pages of description (3600 words); 2 sheets of drawings.

*Mode I*: He may secure the services of another practicing U.S. patent attorney, who, in addition to his domestic practice, offers services in conjunction with agents abroad to secure foreign patents.

*Mode II*: He may secure the services of an intermediary firm of attorneys which does not represent applicants before the U.S. Patent Office. Such an intermediary functions as a specialist in matters relating to foreign industrial property protection. Because they "know the ropes," the members of such a firm are in a position to utilize the firm's extensive overseas connections to channel documents to foreign attorneys and agents as might be necessary. This expertise is, of course, also acquired by the prosecuting U.S. attorney of Mode I who engages in foreign patenting. Generally, U.S. prosecuting attorneys employing specialist firms of Mode II seek those headquartered in the United States, but intermediaries located in foreign countries are sometimes also retained. For example, some specialist firms develop expertise with respect to patent matters in certain regions, e.g., one stationed in Mexico specializes in filings in Central and South America. London and Paris-based intermediary firms are often used for "exotic" countries, such as the former British or French colonies.

*Mode III:* He may deal directly with local attorneys and agents in each of the countries in which his client wants patent protection. Following this route, of course, avoids the need of a middleman required in the first two options, but places on the U.S. prosecuting attorney himself the responsibility of securing reliable local representation.

Each of these three options relies ultimately on local agents or attorneys who must at least file all the documents with the local patent offices and receive office actions and other official notices. With few exceptions,[5] patent laws require appointment of a local agent to receive official patent office correspondence and file any necessary papers or documents on behalf of the applicant. However, Modes I and II provide as advantages to the U.S. prosecuting attorney the convenience of dealing with a single correspondent. Those using Mode III, however, must communicate with a local agent in each country in which foreign protection is sought, with all the attendant difficulties. The balancing feature, of course, is that Mode III provides substantial cost saving.

It should be emphasized that since costs alone are explored in this study, and not the character and the extent of the services rendered, perspective should not be lost in regard to the other very substantial

[5] See Rule 341 (e) of U.S. Rules of Practice, for example.

factors which weigh in the decision of the particular mode for proceeding. While it is true that many large companies opt for the direct route as their familiarity with foreign practice increases, lack of inhouse resources to evaluate on a recurrent basis the competence of local agents, and the absence of a consistently large volume of foreign filings, for example, may very well outweigh pure cost considerations on a case-by-case basis.

Before a filing can be effected in a foreign patent office, the U.S. application must be revised into acceptable format and, where non-English speaking countries are involved, the application must be translated. The revision can be performed by the U.S. prosecuting attorney, if he has the sophistication and the time, or more commonly is executed by the outside assistance secured. Sophisticated practitioners with foreign practice involving Canada, for example, will reduce expenses by preparing the U.S. application for filing in Washington as the photocopy of the original typed copy which is filed in Ottawa. (Canada requires the ribbon copy, U.S.A. does not.)

The translation is generally secured by the local agents, perhaps by translators in their employ. For the more common languages the specialists (Mode II) and the outside U.S. patent attorney (Mode I) with substantial foreign work may retain translators on their staffs. The centralization offered by these two modes, of course, offers possibilities for avoiding duplicate expenses for translations where several applications are filed in countries with a common language. It appears to be the present practice, for example, where the U.S. prosecuting attorney is seeking to protect an invention in several Latin American countries by direct communication with local agents (Mode III) to pay Spanish translation fees for each of these filings.

In addition to the translation costs and the fees paid to the intermediary agents for their work and involvement (representation cost), applicants, of course, must pay the government filing fees. These represent the smallest percentage of the outlay required for getting a foreign application on file, and, in any event, remain constant no matter which of the three modes are used. The largest percentage of cost in filing, by far, in the Mode I and II approaches is the representation expense, which is significantly reduced by the more direct filing route under Mode III. It seems that the cost of translation does not vary particularly in the three modes. Although translations obtained by local agents under Mode III are less costly, the savings are not substantial.

The average total costs in Table 1 for obtaining a foreign filing,

TABLE 1
FILING COSTS

| Country | Govern-ment | Trans-lation | Represen-tation | Total |
|---|---|---|---|---|
| Canada I | 42 | 0 | 168 | 210 |
| II | 42 | 0 | 88 | 130 |
| III | 42 | 0 | 48 | 90 |
| Great Britain I | 36 | 0 | 190 | 226 |
| II | 36 | 0 | 97 | 133 |
| III | 36 | 0 | 28 | 64 |
| West Germany I | 13 | 108 | 216 | 337 |
| II | 13 | 124 | 185 | 322 |
| III | 13 | 93 | 79 | 185 |
| Japan I | 6 | 108 | 231 | 345 |
| II | 6 | 135 | 168 | 309 |
| III | 6 | 108 | 124 | 238 |
| France I | 24 | 108 | 216 | 348 |
| II | 24 | 108 | 204 | 336 |
| III | 24 | 65 | 74 | 163 |
| Italy I | 31 | 95 | 232 | 358 |
| II | 31 | 105 | 193 | 329 |
| III | 31 | 46 | 69 | 146 |
| Australia I | 44* | 0 | 182 | 226 |
| II | 44* | 0 | 140 | 184 |
| III | 44* | 0 | 71 | 115 |
| Holland I | 40 | 92 | 218 | 350 |
| II | 40 | 120 | 163 | 323 |
| III | 40 | 90 | 108 | 238 |
| Belgium I | 6 | 66** | 230 | 302 |
| II | 6 | 100** | 219 | 325 |
| III | 6 | 58** | 44 | 108 |
| Sweden I | 77 | 108 | 206 | 391 |
| II | 77 | 180 | 240 | 497 |
| III | 77 | 100 | 99 | 276 |
| Switzerland I | 14 | 84** | 198 | 296 |
| II | 14 | 113** | 127 | 254 |
| III | 14 | 108** | 76 | 198 |

* Sealing fee of $17 refunded if patent is not issued.

** If translation is provided, a "copying" charge amounting to approximately ¼ to ⅓ is generally substituted.

based on a pending U.S. application, are as follows: Mode I, $308; Mode II, $286, and Mode III, $166.[5a]

There are, of course, miscellaneous costs involved in the filing phase. These include items such as photocopying the U.S. application to obtain copies for the files of the various intermediaries. Other photocopies must be certified by the U.S. Patent Office and filed with the local patent offices in order to obtain benefits of Paris Union priority provisions. Formal application documents (powers of attorney, et cetera) to be filed in the patent offices usually require legalization. Formal sheets of drawings to accompany the patent application are a further expense, particularly in Mode III, since these are obtained by the U.S. prosecuting attorney himself from a drawing service, generally in Washington. This service keeps current with drawing requirements in the various foreign patent offices and produces these rather inexpensively by photographic techniques, generally at about $7 per sheet per country. Other miscellaneous costs would be the cost of obtaining necessary licenses from the State Department and from the U.S. Patent Office to file abroad, if desired, prior to the six-month period specified in 35 U.S.C. 184, and, of course, postage fees (including air mail).

## The Prosecution Phase

This phase involves guiding the proceedings with respect to the filed applications through to the grant of national patents. As already noted, this phase is significant only in countries which conduct an examination as to the merits of the invention, which usually involves questions of sufficiency of disclosure, novelty, unobviousness and industrial utility. As in the United States, the prosecution entails a consideration of the application by a patent examiner, followed by an indication of allowance or an official action rejecting the application on any number of grounds. Before grant, some countries provide for opposition proceedings. Official actions are dispatched to the local agent in the case, who generally translates them into English, obtains copies of cited references and translates the pertinent portions of those most significant. Depending on which one of the three modes of proceeding was employed in the filing phase, the agent then forwards the translated material together with his comments, either directly to the U.S. prosecuting attorney, or down the line by way of the intermedi-

[5a] Compare these Mode I and II average filing cost figures with the $300 reasonable average filing charge quoted by Leonard J. Robbins in "Patents and U.S. Foreign Policy," *IDEA*, Vol. 11, No. 4 (Winter 1967-1968) at p. 539.

aries. The response to the official action eventually returns to the local patent office, retracing the same steps.

As has already been noted, the degree of control which the U.S. prosecuting attorney retains during the course of these proceedings varies considerably. The spectrum of possibilities is broad. At one end the U.S. prosecuting attorney's involvement is minimal, unless a major policy decision or technical question is raised. At the other extreme, the intermediary or intermediaries act merely as funnels (and translators) to pass on the office action to the prosecuting attorney for instructions regarding the response. Obviously, the cheapest approach is to use local agents (Mode III) merely as pipe lines for the communications between the U.S. prosecuting attorney and the local patent offices. Under this latter approach, the U.S. prosecuting attorney will assume full responsibility for generating a complete response to the actions.

Since formal matters are peculiarly within the domain of the local agents, rejections based on these grounds are generally handled without intervention or need for concern by the U.S. prosecuting attorney.

For registration countries, of course, the cost during this phase is minimal. For examination countries, the amount involved varies on the number of go-arounds required with the patent office. The average out-of-pocket cost per amendment, times a factor representing the number of amendments required on the average to overcome rejections when added to the government fees of issuance and publication (final fees) in a particular country, will determine the general cost of the prosecution phase. Further expense, of course, would be incurred if the application were involved in an opposition proceeding which could cost from $200 to $500 depending on the number of opposers.

The deferred systems of examination, in force for some years in The Netherlands and recently effective in Germany, have complicated the prosecution phase. Under the deferred system, of course, the application does not receive a novelty examination, nor an action on the merits unless requested, either by the applicant or by a third party. Maintaining the application alive in The Netherlands requires the payment of special annual fees, much like patent maintenance fees to be discussed. In Germany although there are no "application" maintenance fees as such, under the new German patent law, effective in October 1968, regular annual taxes are due beginning with the third year after filing, whether the patent has already been granted or the application is still pending. In both countries, applicant's request for the examinations involves government fees, and, of course, further payment to the intermediaries for conducting the transaction.

TABLE 2

TYPICAL PROSECUTION CHARGES IN EXAMINATION COUNTRIES

| Country | Average Cost/ Action | × | Average No. of Actions | | Final Fee | = | Prosecution Cost |
|---|---|---|---|---|---|---|---|
| Canada I | $128 | × | 2 | $256 | + $125 | = | $381 |
| II | 102 | × | 2 | 204 | + 120 | = | 324 |
| III | 30 | × | 2 | 60 | + 106 | = | 166 |
| | (P.O. final fee = $83) | | | | | | |
| Great Britain I | $123 | × | 3 | $369 | + $ 21 | = | $390 |
| II | 71 | × | 3 | 213 | + —— | = | —— |
| III | 40 | × | 3 | 120 | + 15 | = | 135 |
| | (P.O. final fee = $7) | | | | | | |
| Japan I | $145 | × | 2 | $290 | + $ 27 | = | $317 |
| II | 129 | × | 2 | 258 | + 54 | = | 312 |
| III | 65 | × | 2 | 130 | + 18 | = | 148 |
| | (P.O. final fee = 1st 3 yr. taxes = $8) | | | | | | |
| Sweden I | $156 | × | 4 | $624 | + $ 42 | = | $666 |
| II | 136 | × | 4 | 544 | + 54 | = | 598 |
| III | 75 | × | 4 | 300 | + 40 | = | 340 |
| | (P.O. final fee = $29) | | | | | | |
| West Germany I | $ 96 | × | 5 | $480 | + $ 35 | = | $515 + — +86** = — |
| II | 101 | × | 5 | 505 | + 26 | = | 531 + 110* + 95** = $736 |
| III | 50 | × | 5 | 250 | + 32 | = | 282 + 36* + 71** = $389 |
| | (P.O. final fee = $15) | | | | | | |

* To which must be added Request for Novelty Search ($25 P.O. fee) which if paid by U. S. Foreign Specialist (II) is typically $110; German Agent (III) $36.

** And request for Prosecution ($50 P.O. fee) which is (I) $86; (II) $95; (III) $71.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Netherlands I | | | | | | | |
| II | | | | | | | |
| III | $ 75 | × | 5 | $375 | + $ 49 | = | $424 + 168* = $592 |
| | (P.O. final fee = $42 1st year tax) | | | | | | |

| Deferred Examination Costs (DEC) | I | II | III |
|---|---|---|---|
| Request for Novelty Search (Gov't Fee $28) | — | $55 | $35 |
| Request for Prosecution (Gov't Fee $41) | — | 69 | 49 |
| Application Maintenance Fee per year (Gov't Fee $21) | $38 | 34 | 28 |

* For maintaining application pending for three years the DEC amount to

| I | II | III |
|---|---|---|
| — | $ 55 | $ 35 |
| — | 69 | 49 |
| $114 | 102 | 84 |
| | $226 | $168 |

(—) denotes no data available.

## The Maintenance Phase

Contrary to U.S. practice, the maintenance of patents in most countries involves the payment of periodic taxes, sometimes referred to as annuities. These are on a graduated scale and rise sharply toward the end of the patent term. The expense involved in these later years is so great that only those patents which provide a source of revenue are kept alive. The most costly country for these taxes is Germany where maintaining the patent for the maximum statutory duration involves an expenditure of some $2700 in government patent office fees alone.

The practice in many corporations of making the original decision to obtain foreign patents, and to decide whether to maintain them once obtained, is to convene an international patent committee consisting of patent counsel, together with representatives of marketing and international business, the contract administrator, senior engineer, department heads, et cetera. Generally, once the original decision has been made to obtain a foreign patent, patent counsel presses diligently for the grant and the taxes for the first five years of the life of the patent are paid automatically without review. After five years, with the escalation in the annual taxes, the committee is convened periodically to consider the advisability of maintaining the patent (and paying the tax). It is estimated that at the five-year point, 50 percent of foreign patents are dropped, and that no more than 25 percent go to term. As it is, some patentees do not pay the fee for the final year of the patent, since the possibility of late payment (with fine) generally permits deferring this expense until positively needed.

The manner in which patentees monitor the dates for the payment of taxes varies and does not depend strictly on the mode employed in the filing and prosecution phases. Some companies maintain inhouse records and assume the responsibility of notifying local agents abroad to make timely payment. Others may rely on reminders from the intermediaries of imminent due dates of payment. Under this arrangement, payment by the patentee is made to the intermediary, together with additional fee for the service. Corporations with foreign subsidiaries may let the subsidiary benefiting from the patent pay the taxes.

A recent development in the maintenance of patents is the establishment of a U.S.-based computerized service to monitor and pay taxes on behalf of patentees. Such a service utilizes a computer programmed with pertinent data about all of a firm's foreign patent holdings and will, at intervals, prepare typed notices as to which taxes are due. This statement is sent to the subscriber who will, if a positive decision has

been made to maintain the patent, return a check together with the computer print-out sheet for payment of the tax by the service.

The following tabulation shows that this service costs no more, and generally less, than having local attorneys abroad monitor and pay the taxes. The additional convenience of this centralized operation to the U.S. prosecuting attorney is clear.

Coupled with the requirement for the annual payment of taxes, the patent laws of some countries require that the patent be exploited, or worked, to meet the economic requirements of the country.[6] Failure to meet these requirements may subject the patentee to a compulsory license or even to possible revocation. To avoid these risks, documentation of acts of exploitation, so-called "working," is submitted to the appropriate patent offices. In some countries where actual working is not taking place, it may be sufficient to submit proof of nominal working, i.e., that the invention has been publicly advertised as available for license. In several Latin American countries, the working requirements are routinely honored in this way. Where applicable, proof of working is required periodically, perhaps once every three years, and monitoring call-ups to anticipate due dates are handled by the intermediaries or local agents like taxes. Since satisfying working requirements is more complicated a transaction than the payment of taxes, which merely calls for the payment of money, working might not be so readily performed by a computerized service handling maintenance fees.

The above has included only routine expenditures in patent maintenance. Of course, additional and rather considerable expenditures will be incurred if the patent becomes a subject of litigation. Another source of significant expense would be the cost of recording the assignments of patents, a necessary action after any kind of corporate reorganization, transfer of assets, or acquisition of title to an issued patent from a previous owner.

Appendix A contains representative examples of the cost of obtaining and maintaining foreign patents for five years under the three modes.

## Effects of PCT on Cost of Multiple National Filings

One of the aims of this study was to provide some degree of insight into alternatives currently available in conducting foreign patent

[6] See Bernard Olcott's article: "Realistic Aspects of Working Foreign Patents," *JPOS*, Vol. 45, No. 4 (April 1963), p. 315 et seq.

TABLE 3
MAINTENANCE FEES

| AUSTRALIA | | TYPICAL EXPENSES IF PAID BY | | | | |
|---|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | French Foreign Specialist | Australian Agent | U. S. Computerized Service |
| 4 | $11 | $21 | $32 | $15 | $16 | $15 |
| 5 | 14 | 23 | 33 | 17 | 18 | 17 |
| 6 | 16 | 30 | 35 | 20 | 20 | 19 |
| 7 | 18 | 28 | 38 | 22 | 23 | 21 |
| 8 | 20 | 30 | 41 | 24 | 25 | 23 |
| 9 | 22 | 35 | 45 | 26 | 29 | 27 |
| 10 | 25 | 37 | 47 | 29 | 32 | 29 |
| 11 | 27 | 39 | 50 | 31 | 34 | 31 |
| 12 | 29 | 42 | 53 | 34 | 36 | 34 |
| 13 | 30 | 44 | 56 | 38 | — | 36 |
| 14 | 34 | — | — | — | — | — |
| 15 | 36 | — | — | — | — | — |

| BELGIUM | | TYPICAL EXPENSES IF PAID BY | | | |
|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | French Foreign Specialist | U. S. Computerized Service |
| 2 | $ 4 | $28 | $27 | $ 9 | $ 8 |
| 3 | 6 | — | 29 | 11 | 10 |
| 4 | 8 | 32 | 31 | 13 | 12 |
| 5 | 11 | — | 34 | 16 | 15 |
| 6 | 14 | 39 | 39 | 19 | 19 |
| 7 | 17 | — | 42 | 22 | 22 |
| 8 | 20 | — | 45 | 25 | 25 |
| 9 | 23 | — | 48 | 28 | 28 |
| 10 | 26 | — | 51 | 31 | 31 |
| 11 | 30 | — | 57 | 35 | 36 |
| 12 | 34 | — | 61 | 39 | 40 |
| 13 | 38 | — | 65 | 43 | 44 |
| 14 | 42 | — | — | — | 49 |
| 15 | 46 | — | — | — | 53 |
| 16 | 50 | — | — | — | 57 |
| 17 | 54 | — | — | — | 61 |
| 18 | 58 | — | — | — | 65 |
| 19 | 62 | — | — | — | 69 |
| 20 | 66 | — | — | — | 73 |

TABLE 3, Cont.
MAINTENANCE FEES

| FRANCE | | TYPICAL EXPENSES IF PAID BY | | | |
|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | French Agent | U. S. Computerized Service |
| 2 | $ 6 | $28 | $30 | $13 | $12 |
| 3 | 7 | 29 | 31 | 14 | 12 |
| 4 | 8 | 29 | 32 | 15 | 13 |
| 5 | 9 | 35 | 33 | 17 | 16 |
| 6 | 10 | 36 | 38 | 20 | 17 |
| 7 | 12 | — | 40 | 22 | 20 |
| 8 | 14 | — | 41 | 24 | 22 |
| 9 | 16 | — | 42 | 26 | 24 |
| 10 | 18 | — | 43 | 30 | 26 |
| 11 | 20 | — | 51 | 32 | 26 |
| 12 | 22 | — | 52 | — | 31 |
| 13 | 24 | — | 53 | — | 34 |
| 14 | 26 | — | 54 | — | 36 |
| 15 | 30 | — | 55 | — | 39 |
| 16 | 32 | — | 64 | — | 40 |
| 17 | 32 | — | 64 | — | 43 |
| 18 | 34 | — | 64 | — | 45 |
| 19 | 36 | — | 64 | — | 47 |
| 20 | 38 | — | 64 | — | 50 |

| GERMANY | | TYPICAL EXPENSES IF PAID BY | | | | |
|---|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | French Foreign Specialist | German Agent | U. S. Computerized Service |
| 3 | $13 | $45 | $36 | $16 | $21 | $18 |
| 4 | 13 | 45 | 36 | 16 | 21 | 18 |
| 5 | 20 | — | 44 | 24 | 28 | 26 |
| 6 | 32 | 73 | 58 | 35 | 42 | 40 |
| 7 | 44 | — | 70 | 48 | 54 | 53 |
| 8 | 63 | — | 89 | 67 | 74 | 71 |
| 9 | 82 | — | 110 | 86 | 94 | 93 |
| 10 | 100 | — | 129 | 105 | 113 | 112 |
| 11 | 132 | — | 160 | 136 | 143 | 142 |
| 12 | 169 | — | 200 | 174 | 184 | 183 |
| 13 | 207 | — | 236 | 212 | 222 | 221 |
| 14 | 250 | — | 281 | 255 | 265 | 265 |
| 15 | 294 | — | 329 | 295 | 313 | 313 |
| 16 | 338 | — | 372 | — | 357 | 353 |
| 17 | 382 | — | 415 | — | 401 | 397 |
| 18 | 425 | — | 459 | — | — | 441 |

TABLE 3, Cont.
MAINTENANCE FEES

| GREAT BRITAIN | | TYPICAL EXPENSES IF PAID BY | | | |
|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | British Agent | U. S. Computerized Service |
| 5 | $ 5 | $19 | $36 | $20 | $18 |
| 6 | 17 | 22 | 39 | 22 | 20 |
| 7 | 24 | 29 | 46 | 30 | 27 |
| 8 | 29 | 34 | 52 | 35 | 32 |
| 9 | 34 | 38 | 59 | 41 | 37 |
| 10 | 41 | 46 | 66 | 46 | 44 |
| 11 | 48 | 53 | 74 | 54 | 51 |
| 12 | 53 | 58 | 79 | 59 | 56 |
| 13 | 58 | 62 | 85 | 64 | 61 |
| 14 | 63 | 67 | 94 | 69 | 66 |
| 15 | 68 | 72 | 97 | 75 | 70 |
| 16 | 72 | — | 100 | 80 | 75 |

| ITALY | | TYPICAL EXPENSES IF PAID BY | | | | |
|---|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | French Foreign Specialist | Italian Agent | U. S. Computerized Service |
| 1 | $ 2 (pd. | on filing) | | | | |
| 2 | 3 | $24 | $25 | $ 8 | $ 7 | $ 6 |
| 3 | 5 | 28 | 28 | 10 | 9 | 8 |
| 4 | 6 | 29 | 30 | 12 | 11 | 10 |
| 5 | 8 | 30 | 32 | 14 | 13 | 12 |
| 6 | 13 | 31 | 37 | 19 | 18 | 17 |
| 7 | 14 | 34 | 40 | 22 | 21 | 19 |
| 8 | 16 | 36 | 42 | 24 | 23 | 21 |
| 9 | 19 | 40 | 46 | 28 | 27 | 24 |
| 10 | 24 | 46 | 51 | 34 | 31 | 30 |
| 11 | 29 | 52 | 58 | 41 | 38 | 37 |
| 12 | 34 | 59 | 65 | 48 | 43 | 42 |
| 13 | 40 | 65 | 71 | 54 | 51 | 49 |
| 14 | 48 | 70 | 81 | 63 | 59 | 59 |
| 15 | 56 | — | — | — | 73 | 67 |

TABLE 3, Cont.
MAINTENANCE FEES

| JAPAN | | TYPICAL EXPENSES IF PAID BY | | | |
|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | Japanese Agent | U. S. Computerized Service |
| 1,2,3 | $ 8 | $30 | $54 | $17 | — |
| 4 | 4 | 22 | 33 | 16 | $13 |
| 5 | 4 | 22 | 34 | 16 | 13 |
| 6 | 4 | 22 | 33 | 16 | 13 |
| 7 | 8 | 28 | 39 | 21 | 17 |
| 8 | 8 | 28 | 39 | 21 | 17 |
| 9 | 8 | 28 | 39 | 21 | 17 |
| 10 | 17 | 39 | 49 | 31 | 25 |
| 11 | 17 | 39 | 50 | 31 | 25 |
| 12 | 17 | 39 | 50 | 31 | 25 |
| 13 | 33 | — | 77 | 49 | 48 |
| 14 | 33 | — | 77 | 49 | 48 |
| 15 | 33 | — | 77 | 49 | 48 |

| NETHERLANDS | | TYPICAL EXPENSES IF PAID BY | | | |
|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Foreign Specialist | French Foreign Specialist | Dutch Agent | U. S. Computerized Service |
| 2 | $ 48 | $ 73 | $ 53 | $ 56 | $ 52 |
| 3 | 55 | 80 | 60 | 63 | 60 |
| 4 | 62 | 87 | 67 | 70 | 67 |
| 5 | 69 | 94 | 74 | 77 | 74 |
| 6 | 77 | 102 | 82 | 85 | 82 |
| 7 | 86 | 111 | 91 | 94 | 90 |
| 8 | 94 | 119 | 99 | 102 | 99 |
| 9 | 100 | 128 | 107 | 110 | 107 |
| 10 | 110 | 137 | 116 | 120 | 117 |
| 11 | 122 | — | — | — | 127 |
| 12 | 131 | — | — | — | 137 |
| 13 | 141 | — | — | — | 146 |
| 14 | 152 | — | — | — | 158 |
| 15 | 163 | — | — | — | 169 |
| 16 | 174 | — | — | — | 180 |
| 17 | 188 | — | — | — | 190 |
| 18 | 196 | — | — | — | 202 |

TABLE 3, Cont.
MAINTENANCE FEES

| SWEDEN | | TYPICAL EXPENSES IF PAID BY | | | | |
|---|---|---|---|---|---|---|
| Year | P.O. Fee | U. S. Attorney | U. S. Foreign Specialist | French Foreign Specialist | Swedish Agent | U. S. Computerized Service |
| 1 | $ 10 | — | — | $12 | $ 13 | $ 13 |
| 2 | 10 | — | — | 12 | 13 | 13 |
| 3 | 19 | — | — | 24 | 25 | 23 |
| 4 | 19 | — | — | 24 | 25 | 23 |
| 5 | 19 | 62 | 45 | 24 | 27 | 24 |
| 6 | 29 | 62 | 55 | 24 | 37 | 34 |
| 7 | 39 | — | 66 | 34 | 47 | 44 |
| 8 | 48 | — | 76 | 43 | 57 | 54 |
| 9 | 58 | — | 86 | 53 | 68 | 64 |
| 10 | 68 | — | 97 | 63 | 78 | 74 |
| 11 | 77 | — | 108 | 73 | 88 | 85 |
| 12 | 87 | — | 117 | 82 | 99 | 95 |
| 13 | 97 | — | 130 | 92 | 109 | 106 |
| 14 | 106 | — | 142 | 102 | 123 | 116 |
| 15 | 126 | — | 162 | — | 133 | 137 |
| 16 | 145 | — | 183 | — | 163 | 157 |
| 17 | 164 | — | 204 | — | 184 | 177 |

TABLE 4
SOME TYPICAL CHARGES TO EFFECT A NOMINAL WORKING

| Country | Thru U. S. Attorney (I) | Thru U. S. Foreign Specialist (II) | Thru Local Agent (III) |
|---|---|---|---|
| Argentina | 25 | 54 | 21 |
| Australia | 75 | 56 | 36 |
| Belgium | 45 | 60 | — |
| Phillipines | 98 | 62 | — |

operations. Another has been to establish some framework against which proposals to alleviate the present international patent situation can be measured. The following illustrates how the data derived from this analysis may be used to achieve this second objective. In particular, consideration will be given to the effect that the Patent Cooperation Treaty (PCT), proposed as an optional alternative to traditional practice under the Paris Union, will have on the costs of getting patent applications, corresponding in subject matter to a pending U.S. application, on file in multiple patent offices.

In operations under the Treaty, it is contemplated that the U.S. prosecuting attorney will first file a domestic application for the inventor as at present. Within a period of a year, he would request international treatment, pay the prescribed PCT fees, and designate those countries in which he would seek national patents. The action of designation would "have the effect of a regular national application in each designated State." (Article 11 (3).) Thus, if the applicant should designate the 11 major countries for U.S. filings (identified in Table 1), the U.S. prosecuting attorney would convert the single domestic application into 11 further national filings. By guarantees of the Treaty (Articles 22 and 39) payment of national filing fees and translations would be deferred for at least 20 months from the date of the original filing. The elements of PCT costs involved to the applicant initially, to achieve these international filings, would be the following:

(1) Transmittal fee (Rule 14) to the U.S. Patent Office as the Receiving Office;[7]

(2) International basic fee (Rule 15) to BIRPI;[8]

(3) International Search fee (Rule 16) to U.S. Patent Office Searching Authority. (The essential part of search work for international search would be funded by U.S. filing fee and would involve updating U.S. Search);

(4) Designation fee (Rule 15) to BIRPI.[9]

Assuming, arguendo, (as a reasonable guess) that the first three of the fees would together amount to $110, and that the total designation fee, at $10 each, for 11 countries would amount to $110, for $220 (sum of all PCT fees), the U.S. applicant will have on file national patent

[7] July 1969 draft of PCT indicates transmittal fee of $20 (Rule 14.1).

[8] July 1969 draft of PCT indicates basic fee to be between $40 and $50 if application contains no more than 30 pages.

[9] July 1969 draft of PCT indicates designation fee to be between $10 and $15 per country (Rule 15.2 (b)).

applications in Canada, Great Britain, West Germany, Japan, France, Italy, Australia, Netherlands, Belgium, Sweden and Switzerland. Should he elect to proceed with the foreign patentings, he eventually would have to pay additionally the costs of translations and the national fees, as at present, though payment as mentioned would be deferred. However, the representation fees payable to the intermediary agents (Modes I to III) that currently must be expended to effect national filings would be eliminated. The U.S. prosecuting attorney, based on a U.S. filing of acceptable international format together with a formal request for international treatment, and by payment of the PCT fees, will himself have directly achieved 11 foreign national filings. The cost saving under this procedure for the filing phase can be evaluated by comparing the sum of the PCT fees with the sum of the now eliminated representation fees under current practice. The remaining fees involved in patent filing are unchanged.

In view of the three possible modes of currently effecting multiple national filings, the PCT fees will be compared against the cumulative representation fees under each of the three modes. See Charts 1, 2 and 3 appended.

TABLE 5

CUMULATIVE REPRESENTATION FEES FOR ELEVEN COUNTRIES*

| | I | II | III |
|---|---|---|---|
| | Thru U. S. Attorney | Thru U. S. Foreign Specialist | Thru Local Agent |
| Representation Fees | $2287 | 1824 | 820 |
| PCT Fees | 220 | 220 | 220 |
| Savings | $2067 | 1604 | 600 |

* Canada, Great Britain, West Germany, Japan, France, Italy, Australia, Netherlands, Belgium, Sweden, Switzerland.

Savings, though reduced, can be similarly estimated for a lesser number of national filings by use of these charts. The only variable in the PCT charges will be the designation fee which is dependent on the number of countries in which foreign filing is to be effected. Thus, for five countries, the designation fees would amount to $50 (rather than the $110 for the previous example) reducing the assumed PCT fees to $160. In this situation, the cost savings are estimated to be as follows:

TABLE 6
CUMULATIVE REPRESENTATION FEES FOR FIVE COUNTRIES*

| | I | II | III |
|---|---|---|---|
| | Thru U. S. Attorney | Thru U. S. Foreign Specialist | Thru Local Agent |
| Representation Fees | $1021 | 742 | 353 |
| PCT Fees | 160 | 160 | 160 |
| Savings | $ 861 | 582 | 193 |

* Canada, Great Britain, West Germany, Japan, France.

As the number of countries in which national filings would be effected under PCT were reduced, the benefits would diminish to the point where if the U.S. prosecuting attorney were solely interested in patents in Canada and Great Britain using Mode III (filing through Canadian and British agents), he would expend less money by effecting national filings as at present, and perhaps then would elect to proceed in the traditional manner.

Under the presently assumed fees, the break-even point when local agents are dealt with directly (Mode III) would be about three foreign filings (PCT fees: $140; representation fees: $155 [see Chart 3]) i.e., slight cost savings would be realized when the Treaty is utilized to get three national patent applications on file in addition to the original U.S. patent application. This point would be around two filings under Mode II (PCT fees: $130; representation fees: $185 [Chart 2]); and for Mode I, savings would be realizable for just one foreign filing (PCT fees: $120; representation fee: $168 [Chart 1]). As the estimates for the PCT fee structure are revised, the savings achievable and the break-even points will change; the new values for the refined fees can be readily ascertained by reference to the above-mentioned "staircase" charts appended.

In concluding, a few other cost consequences of the draft Treaty could be suggested for more quantitative analysis. For example, after the initial investment of the PCT fees, the commitment of national filing fees and necessary translation expenses to complete the foreign patentings is postponed because of the Treaty's deferral guarantees. These latter outlays, at the applicant's option, will be made only after he has had the opportunity to evaluate an international search report (Article 18) listing the prior art pertinent to his invention, and after

he has had a longer time than presently afforded by the provisions of the Paris Union to appraise the invention's commercial potential. With additional evidence upon which to base a conclusion, the risk factor of these and subsequent investments will diminish. If the applicant proceeds, his prosecution costs in the designated countries should be reduced. Since the U.S. prosecuting attorney can amend the international application in light of the search report (Article 19), his one amendment could be expected to reduce the average number of actions required (Table 2) in prosecuting the national applications. Additional grounds for cost savings are possible under the assumption that the applicant avails himself of the optional phase of the draft Treaty calling for the issuance of an international preliminary examination report (Article 35) which would provide a certificate with some positive indications of the invention's patentable merit.

## APPENDIX A:

REPRESENTATIVE EXAMPLES OF THE COST OF OBTAINING PATENTS AND MAINTAINING THEM FOR FIVE YEARS IN THE THREE MODES*

| | | |
|---|---|---|
| *Example 1:* | | |
| Canada | Mode | I—(Through U. S. Attorney) |
| Filing | $210 | |
| Miscellaneous | 6 | |
| Prosecution | 381 | |
| | $597 | |
| No Taxes | | |
| *Example 2:* | | |
| Canada | Mode | III—(Through Canadian Agent) |
| Filing | $ 90 | |
| Miscellaneous | 20 | |
| Prosecution | 166 | |
| | $276 | |
| *Example 3:* | | |
| Great Britain | Mode | I—(Through U. S. Attorney) |
| Filing | $226 | |
| Miscellaneous | 6 | |
| Prosecution | 390 | |
| Taxes (5 years) | 19 | |
| | $641 | |

* In Mode I and II filings, charges for miscellaneous expenses of $6 are added. In Mode III, a further $14 for cost of two drawings is included.

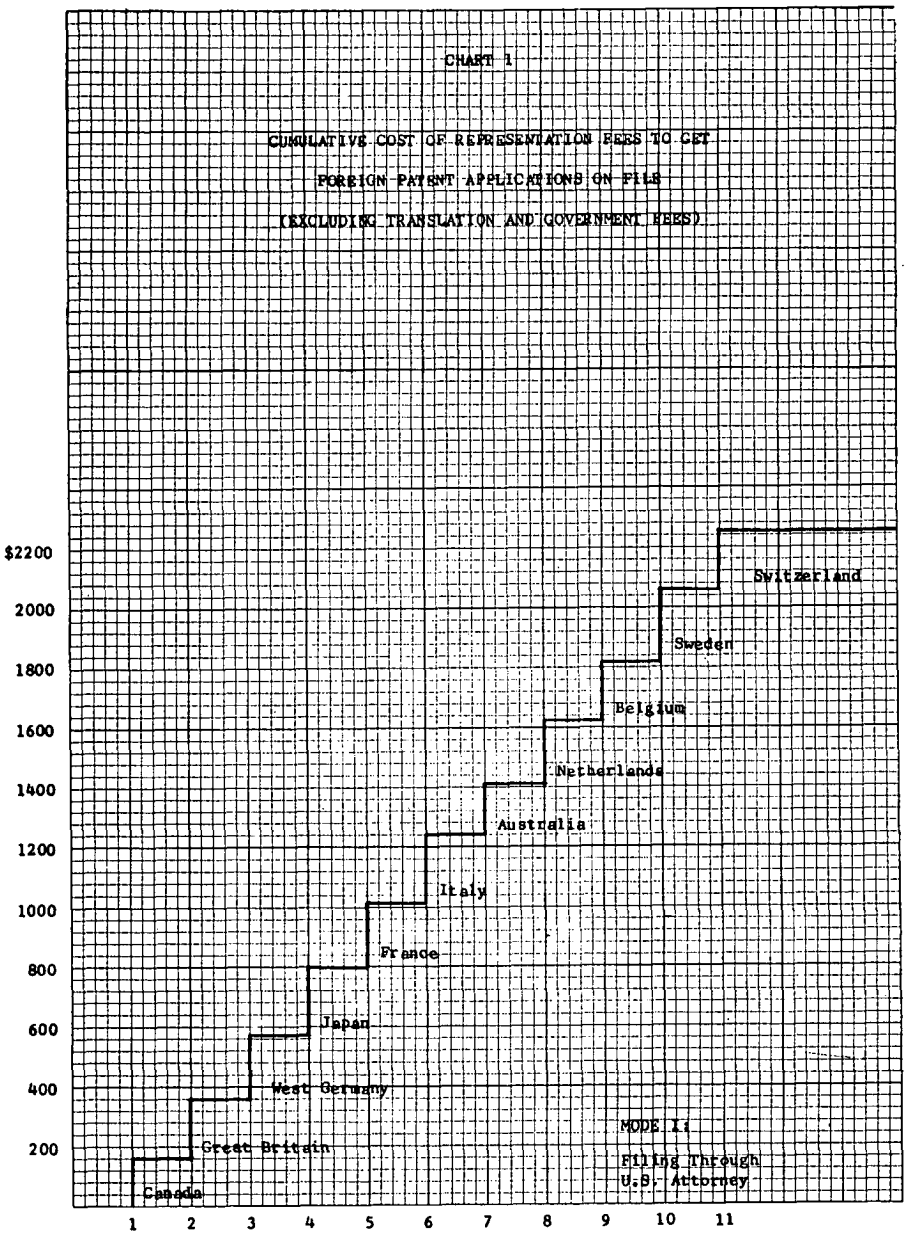
| | | |
|---|---|---|
| *Example 4:* | | |
| Great Britain | Mode III—(Through British Agent) | |
| Filing | $ 64 | |
| Miscellaneous | 20 | |
| Prosecution | 135 | |
| Taxes (5 Years) | 20 | |
| | $239 | |
| *Example 5:* | | |
| West Germany | Mode II—(Through U. S. Foreign Specialist) | |
| Filing | $ 322 | |
| Miscellaneous | 6 | |
| Prosecution | 736 | |
| Taxes 3rd year | 36 | |
| 4th year | 36 | |
| | $1136 | |
| *Example 6:* | | |
| Japan | Mode II—(Through U. S. Foreign Specialist) | |
| Filing | $309 | |
| Miscellaneous | 6 | |
| Prosecution | 317 | |
| Taxes 4th year | 33 | |
| 5th year | 34 | |
| | $699 | |
| *Example 7:* | | |
| Netherlands | Mode III—(Through Dutch Agent) | |
| Filing | $ 237 | |
| Miscellaneous | 20 | |
| Prosecution | 592 | (assume application pending |
| Taxes 1st year | 49 | for 3 years) |
| 2nd year | 56 | |
| 3rd year | 63 | |
| 4th year | 70 | |
| 5th year | 77 | |
| | $1164 | |
| *Example 8:* | | |
| France | Mode I—(Through U. S. Attorney) | |
| Filing | $348 | |
| Miscellaneous | 6 | |
| Prosecution | 0 | |
| Taxes 2nd year | 28 | |
| 3rd year | 29 | |
| 4th year | 29 | |
| 5th year | 35 | |
| | $475 | |

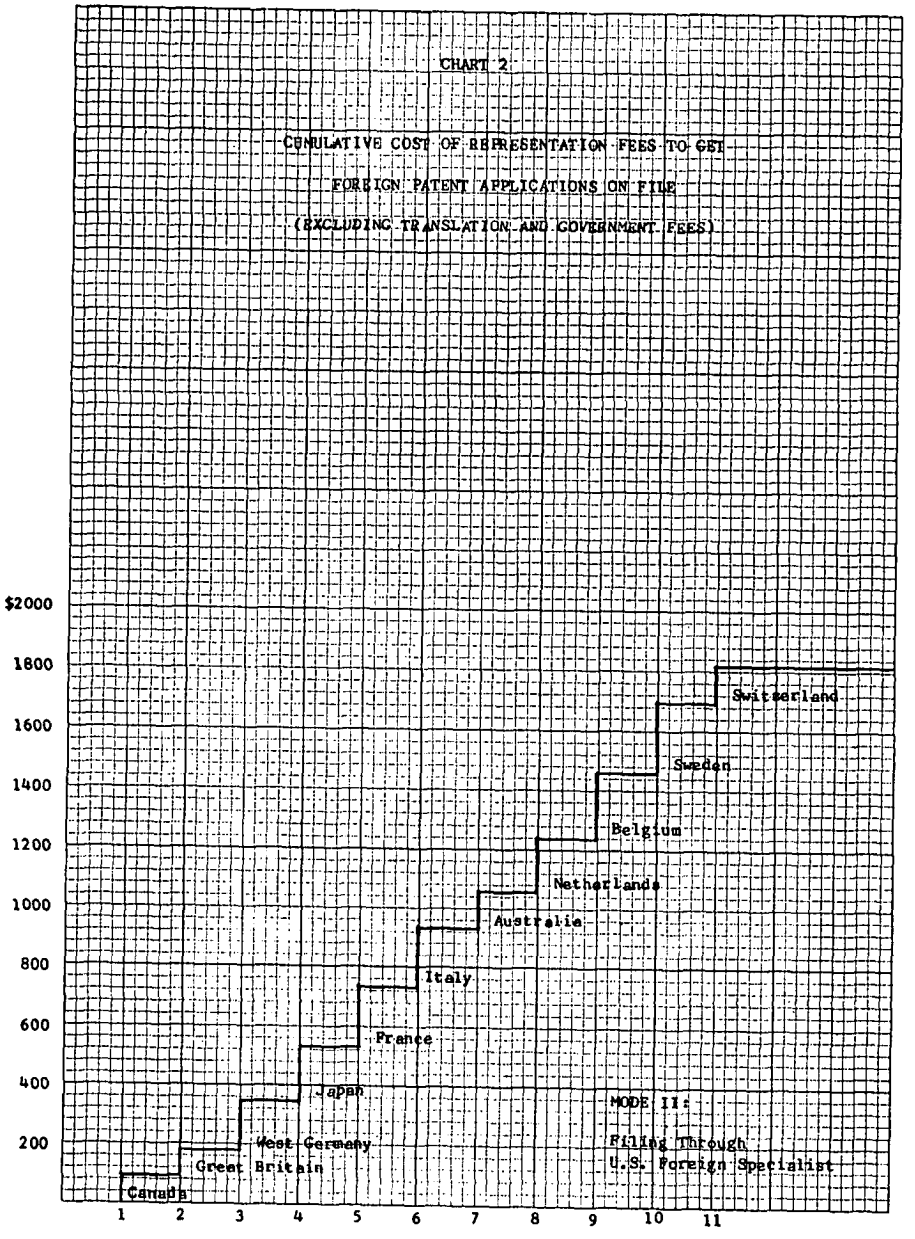
| *Example 9:* | | |
|---|---|---|
| Belgium | Mode | II—(Through U. S. Foreign Specialist) |
| Filing | $325 | |
| Miscellaneous | 6 | |
| Prosecution | 0 | |
| Taxes 2nd year | 27 | |
| 3rd year | 29 | |
| 4th year | 31 | |
| 5th year | 34 | |
| | $452 | |

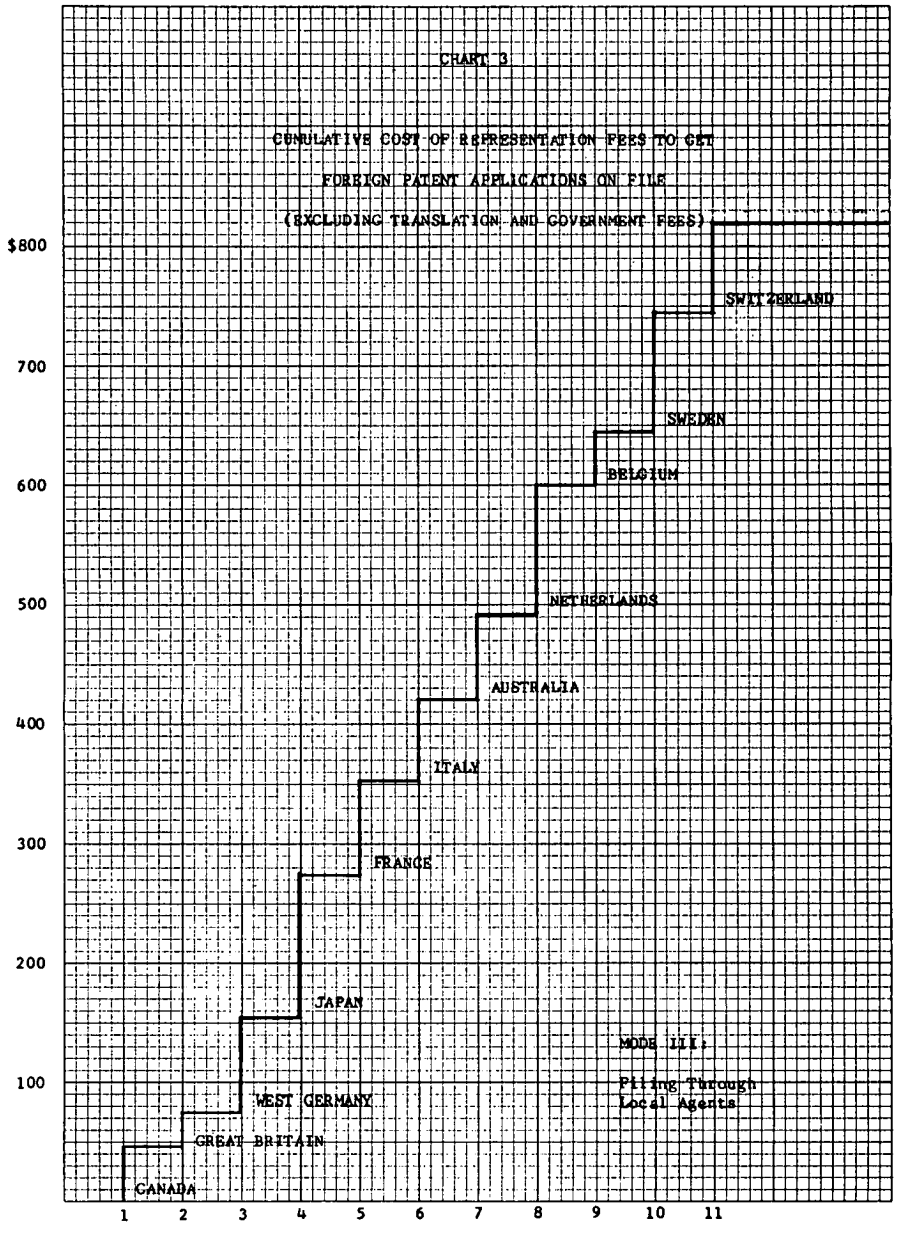
| *Example 10:* | | |
|---|---|---|
| Sweden | Mode | II—(Through U. S. Foreign Specialist) |
| Filing | $ 497 | |
| Miscellaneous | 6 | |
| Prosecution | 598 | |
| Taxes* 1st year | 13 | |
| 2nd year | 13 | |
| 3rd year | 23 | |
| 4th year | 23 | |
| 5th year | 24 | |
| | $1197 | |

* Assume paid through U. S. Computerized Service.

APPENDIX B


CHART 1
CUMULATIVE COST OF REPRESENTATION FEES TO GET FOREIGN PATENT APPLICATIONS ON FILE
(EXCLUDING TRANSLATION AND GOVERNMENT FEES)
$2200
2000
1800
1600
1400
1200
1000
800
600
400
200
1
2
3
4
5
6
7
8
9
10
11
Canada
Great Britain
West Germany
Japan
France
Italy
Australia
Netherlands
Belgium
Sweden
Switzerland
MODE I:
Filing Through
U.S. Attorney


CHART 2
CUMULATIVE COST OF REPRESENTATION FEES TO GET
FOREIGN PATENT APPLICATIONS ON FILE
(EXCLUDING TRANSLATION AND GOVERNMENT FEES)
$2000
1800
1600
1400
1200
1000
800
600
400
200
1
2
3
4
5
6
7
8
9
10
11
Canada
Great Britain
West Germany
Japan
France
Italy
Australia
Netherlands
Belgium
Sweden
Switzerland
MODE II:
Filing Through
U.S. Foreign Specialist


CHART 3
CUMULATIVE COST OF REPRESENTATION FEES TO GET
FOREIGN PATENT APPLICATIONS ON FILE
(EXCLUDING TRANSLATION AND GOVERNMENT FEES)
$800
700
600
500
400
300
200
100
SWITZERLAND
SWEDEN
BELGIUM
NETHERLANDS
AUSTRALIA
ITALY
FRANCE
JAPAN
WEST GERMANY
GREAT BRITAIN
CANADA
MODE III:
Filing Through
Local Agents
1
2
3
4
5
6
7
8
9
10
11

# Fair Use: The Advisability of Statutory Enactment*

JOSEPH E. CASSON

SUMMARY

THIS ARTICLE ATTEMPTS TO EXPLORE the theoretical foundations of the doctrine of fair use in copyright law with a view toward assessing its adaptability to statutory enactment. The author analyzes the doctrine in the context of proposed legislation presently pending in Congress, and concludes that the present formulations of statutory standards are inadequate. The article concludes with recommendations for legislation which the author believes more nearly correspond to the desired purposes and effects of the doctrine.

* This paper was chosen to represent the Georgetown University Law Center in the 1969 Patent Office Society Student Award program. The program is conducted annually under the auspices of The PTC Research Institute. The paper was submitted in partial fulfillment of a course in copyright law. The author is presently associated with the firm of Arent, Fox, Kintner, Plotkin & Kahn, Washington, D.C.

## BACKGROUND

THE DOCTRINE OF FAIR USE is essentially an equitable mitigation of the harsh application of the copyright statute in situations where the use is not excessive and the original author's rights are not adversely affected. The doctrine finds no specific support in the existing statutory framework of copyright protection. Instead, it is a purely judicially derived doctrine based on equitable principles analogous to the rule of *de minimis non curat lex*. In form, it is a defense raised by an alleged infringer. In effect, it is a complete negation of the infringement.

The first authoritative exposition of the doctrine, although certainly not its American genesis, can be found in the case of *Folsom* v. *Marsh*.[1] Although much of the discussion of fair use can only be described as *dicta* because of the conclusion that an infringement occurred, the case is probably the earliest collection of the various criteria which are considered in determining the existence of a fair use. The case involved a two-volume history of George Washington based largely on the private papers of the first President. These papers had been previously published in a copyrighted 12-volume work on the same subject. Neither party denied that 319 pages of the two-volume work, amounting to 866 pages in all, were directly copied from the larger anthology. In defense of the copying the defendant alleged, *inter alia,* that the papers copied constituted a fair use of the copyrighted work.

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[1] 9 F. Cas. 342 (No. 4901) (C.C.D. Mass. 1841) (Story, J.).

The justification for the existence of a doctrine of fair use is variously proffered on grounds of public policy, custom and necessity, or implied consent of authors. The public policy rationale depends largely on the supposition that the constitutional directive authorizing copyright laws implicitly tempered the author's monopoly with considerations of public benefit. Thus, a use which fosters dissemination of useful or beneficial works for the public welfare will be permitted where the adverse effects on the author are minimal. Berlin v. E.C. Publications, Inc., 329 F.2d 54 (2d Cir.), *cert. denied,* 379 U.S. 822 (1964); *see* Register of Copyrights, *Report on the Copyright Law Revision,* 87th Cong., 1st Sess. 5-6 (Comm. Print 1961).

Fair use is also justified as necessary to the progress of the arts in that it promotes essential, necessary or required copying which further disseminates ideas in the public interest as well as the best interests of science and the useful arts. *See, e.g.,* Mathews Conveyor Co. v. Palmer-Bee Co., 135 F.2d 73 (6th Cir. 1943). Finally, implied consent is usually as a justification for the doctrine in those instances where the specific facts of the case support its application there. For example, certain reference books must anticipate a certain amount of excerpting as the price of their value. Because this warrants the application of fair use to the specifics of one case, some courts have broadened it into a justification of fair use as a principle. *See, e.g.,* American Inst. of Architects v. Fenichel, 41 F. Supp. 146 (S.D.N.Y. 1941).

In setting the stage for his discussion of the fair use issue, Justice Story framed the problem as, "whether this is a justifiable use of the original materials, such as the law recognizes as *no infringement* of the copyright to the plaintiffs."[2] This would seem to be the premise for a *legal* determination of the existence or nonexistence of infringement much the same as that indulged in when determining whether a copying has been done at all.[3] Nonetheless, the case was a bill in equity and Justice Story was quite obviously concerned with equitable issues in his conclusions. It would seem, therefore, that the determination of infringement in this case was largely a matter of negating any equitable defenses which might otherwise prevent the penalties for infringement from being applied to the defendant.

Despite these peculiarities of language, the decision notes that a defense to infringement will lie whenever "the value of the original is [not] sensibly diminished, or the labors of the original author are [not] substantially to an injurious extent appropriated by another . . . ."[4] These are perhaps the two most essential criteria of fair use—no interference with the market for the original and no wholesale appropriation of those aspects of the original which constitute the author's contributions. But these factors are largely end results rather than prospective standards for issuing an injunction, and so Justice Story further observed:

> In short, we must often, in deciding questions of this sort, look to the nature and objects of the selections made, the quantity and value of the materials used, and the degree in which the use may prejudice the sale, or diminish the profits, or supersede the objects, of the original work.[5]

These quoted standards formed the basis for development of the law governing fair use to the present day. With various slight alterations in subsequent cases, this doctrine has constituted a judicial amendment to our statutory protection of copyrights since 1841.[6]

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[2] 9 F. Cas. at 348.

[3] The statutes governing copyright have traditionally limited themselves to an exposition of the author's rights in his work with infringement constituting a transgression of one of those exclusive rights. *See* 17 U.S.C. § 1 (1964). An inquiry into whether a copying has been done is a preliminary determination to finding an infringement. This would ordinarily be directed at determining whether the alleged copy was, in fact, a duplicate because of some difference in dimension or composition, *e.g.*, whether a statue can be a copy of a picture. In *Folsom,* the Master's Report concluded, and both parties apparently conceded, that copying had occurred. *See* 9 F. Cas. at 344-45.

[4] *Id.* at 348.

[5] *Id.*

[6] The Register of Copyrights has attempted to reduce the present state of the

The roots of the doctrine of fair use are extremely important to any discussion of the philosophy of the doctrine and its possible adoption as a statutory principle in the proposed new copyright bill.[7] Unless it is understood that fair use originated within the framework of equity, its relationship to infringement and the validity of the standards used to judge its application will be misconstrued. Unless it is further understood that fair use has developed in a *legal* context despite its equitable origins, the significance of whether it negates or merely excuses infringement will be lost.

It is my hope to examine the doctrine of fair use as an equitable instrument with a view to pointing out the serious inconsistencies which have developed in the internal formulation of this rule. My purpose is to apply the philosophy of fair use to the present effort to enact a statutory fair use section in the copyright bill and to demonstrate thereby that such an enactment would only perpetuate the conflicts within the present state of the law. Where pertinent to the discussion, I will explore the historical aspects of fair use in greater depth. Let it suffice for now, that *Folsom* propounded an equitable doctrine capable of establishing the legal conclusion of noninfringe-

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law to four criteria which constitute the interpretive standards in the proposed bill. *See* S. 543, 91st Cong., 1st Sess. § 107 at 8-9 (1969); *Revision Report* at 24. Various similar formulations, almost invariably based on *Folsom,* have appeared in other judicial decisions or expositions. *See, e.g.,* Mathews Conveyor Co. v. Palmer-Bee Co., 135 F.2d 73 (6th Cir. 1943) ("extent and relative value of copyrighted material, and effect upon the distribution or objects of the original work"); Broadway Music Corp. v. F-R Publ. Corp., 31 F. Supp. 817 (S.D.N.Y. 1940) ("the extent and relative value of the extracts, the purpose and whether the quoted portions might be used as a substitute for the original work, and the effect upon the distribution and objects of the original work"); Yankwich, "What Is Fair Use?", *Chicago Law Review,* Vol. 22 (1954), p. 203 ("the quantity and importance of portions taken, their relation to the work of which they are a part, and the result of their use upon the demand for the copyrighted publication.").

[7] S.543, 91st Cong., 1st Sess. § 107 at 8-9 (1969). For purposes of the future discussion of this section, it is here set out in full:

§ 107. Limitations on exclusive rights: Fair use.

Notwithstanding the provisions of section 106, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching, scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include:

(1) the purpose and character of the use;

(2) the nature of the copyrighted work;

(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work.

ment, and subsequent cases have perpetuated this equitable inquiry for the purpose of achieving the same legal result.[8] The threshold question then becomes whether a fundamentally equitable doctrine should be incorporated into a statutory framework, and if so, to what extent.

## Advisability of Statutory Enactment

Whenever a doctrine which has operated with reasonable success as a judicial principle is then proposed as part of a comprehensive legislative restructuring of that area of law, serious questions are raised as to whether the rule will continue to have the same degree of effectiveness as a statute. The common law has much to recommend it including the ability to deal with individualized situations while adhering to the general policy of a law. Statutes, on the other hand, often sacrifice individualized results for uniformity and reliability in the application of laws. Both approaches have obvious merit and their success in achieving maximum justice in a particular sphere depends largely on the nature of the legal principle sought to be applied. As became obvious in the Hearings held on the copyright bill,[9] not everyone was satisfied that the best result could be achieved by reducing the doctrine of fair use to a statutory formula.

### *No Statutory Reference*

The contention that fair use should not be incorporated into the proposed bill is far more serious than a simple desire to let well enough alone. Since fair use is an equitable doctrine there is considerable logic to the argument that it is unsuited to statutory enactment. More than anything else, equity deals in specifics and in so doing should not be confined to any limiting standards other than those of fundamental fairness contained in the maxim of "doing equity."

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[8] *See, e.g.,* Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930) (L. Hand, J.). This has led to even further variances, such as Judge Hand's distinction between copying a theme, which he describes as a fair use, and copying actual expressions, which he classifies as infringement. Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 54 (2d Cir. 1936). Obviously, a theme is in the public domain and the issue of fair use would never arise since no exclusive rights vest in the author with respect to it.

[9] *See, e.g.,* Copyright Law Revision, Part 5, 89th Cong., 1st Sess. 98-102 (Comm. Print 1965); *Hearings on S 597 Before the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary, Part I,* 90th Cong., 1st Sess. 96-119 (1967). (Hereinafter cited *Hearings, Part I*).

No matter how broadly the doctrine is worded in the act, its very reduction to words will serve to limit its potential application. The effect of this will be twofold: First, the present application of the doctrine will be confined to the standards as enumerated in the act,[10] and, once again, no matter how broadly they may be worded, they nonetheless define some sort of outer limit for a court. Second, the future development of the doctrine will be halted or courts will be compelled to formulate another extra-statutory doctrine to meet the ever-changing problems of partial copying.[11] Either alternative foreshadows restrictions which can only serve to debilitate the doctrine.

An equally serious shortcoming of any statutory format is that it necessarily generalizes an enormous body of law into a few categories of broad principles. In so doing, the result may be to displace the availability of numerous shades of fair use, expounded in specialized settings, with vague, indefinite rules of thumb which will compel a court to reinterpret each new factual pattern in the light of the statutory standards. As a simple example, suppose a prior determination of fair use employed none of the four categories of inquiry proposed in the bill as evidence of fair use. Instead, the court ruled entirely on the basis of a *de minimis* rationale.[12] Could a later court turn to this precedent as authority even though it explores none of the prescribed factors? Even though the answer might well be affirmative, the very necessity for the question injects an element of uncertainty which heretofore did not exist in the judicial application of the fair use doctrine.

A final point militating against any statutory incorporation of the rule is that it will also serve to freeze the errors of past interpretation of fair use, to the extent they are reflected in the four enumerated standards. As will be seen later, there is serious doubt that the posturing of fair use as a negation of infringement is a correct

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[10] *See* note 7 *supra.*

[11] No one would dare to venture the opinion that the forms of possible fair use have all been developed. Consequently, any novel duplication devised at some future date would face the possibility of exclusion from fair use because of the freezing of the doctrine. This would compel a court, in the appropriate situation, to devise some exception to liability which would excuse this copying. In other words, it seems to set the stage for another extra-statutory judicial engraftment of fair use at some time in the future.

[12] This would not be as unlikely a possibility as one might first imagine. The doctrine of *de minimis* still enjoys application in the copyright context. *See* Mathews Conveyor Co. v. Palmer-Bee Co., 135 F.2d 73 (6th Cir. 1943); Wilson v. Haber Bros., 275 F. 346 (2d Cir. 1921); Ginn & Co. v. Apollo Publ. Co., 215 F. 772 (E.D. Pa. 1914).

interpretation of that doctrine.[13] It is further questionable whether the third and fourth standards included in the bill are accurate reflections of what a court *should* inquire into when attempting to ascertain the existence of a fair use.[14] If either of these objections is correct, or if any other aspect of the doctrine is inaccurately portrayed in the statute, the error will be legislatively perpetuated and the courts will be unable to remedy the situation by the simple expedient of distinguishing past case law.

*Statutory Acknowledgement Without Elaboration*

A second alternative for the statutory treatment of fair use is simply to acknowledge the existence of a doctrine of fair use and manifest a congressional intent that the act not be interpreted as in any way altering or limiting the independent development of that doctrine. This technique has been applied to good effect in other areas of comprehensive legislation,[15] and has much to recommend it here.

If, as in all probability seems true, the present state of development of the fair use doctrine is not the best possible formulation, then it is extremely important that the potential for further growth of the appropriate underlying principles be left as open as possible. This would seem to be best served by a statutory treatment which reinforces the validity of such a doctrine without setting interpretive boundaries on the directions it might take in the future. The existence of some form of acknowledgement lends strength to the availability of the rule by bestowing the blessing of public policy.

Another advantage of limited acknowledgement is that it reinforces the belief that the existing doctrine will continue in effect. Reliance is one of the primary factors in legislating the common law—a desire to afford certainty to those who would rely on past practice. Limited acknowledgement assures that those actions which were a fair use in the past would remain so and persons could continue their activity without jeopardizing their legal position.

It would seem, therefore, that a limited acknowledgement blends at least some desirable aspects of retaining the common law status of the rule with the certainty of a legislative imprimatur. Admittedly, the certainty would be only slightly more than a pure common law

[13] *See* pp. 14-22 *infra.*

[14] *See* note 7 *supra.*

[15] Perhaps the best example of this is the Uniform Commercial Code treatment of the doctrine of privity. U.C.C. §2-318.

situation, but that single benefit also affords tremendous range to the future growth and development of the doctrine.

*Statutory Formulation*

Like any other statute, enactment of fair use would create a degree of reliability and certainty unavailable under either the common law or a partial statutory reference. Even if the law is incomplete or inaccurate, it is nonetheless plainly spelled out in the Statutes at Large for all to see. The greatest complaint of those testifying on the new copyright bill was that they were constantly unsure of the legal consequences of their actions under the old common law because of the developmental nature of the fair use doctrine.[16] This would certainly be changed under a statutory formula for that rule.

Uniformity also has the advantage of assuring equalized treatment in all jurisdictions. The present state of the law creates occasional variances in outcome depending upon the jurisdiction in which the suit is brought.[17] While the exact dimensions of this disparity are uncertain, it is most certainly a situation which a statutory formula is uniquely adept at resolving. One need only look at the recent trend toward uniform laws in other areas to realize the benefits of such an approach. Obviously, even the individuality of equity can be carried too far.

A second attribute of a statutory formula is that, properly framed, it can provide the guidelines for any future changes in the rule, thereby assuring that they will comport with the general intentions of the copyright laws. While the author suggests that this would not be the case with the section as presently drafted, nonetheless, as a general proposition an adequately structured formulation would serve to direct the future growth of the doctrine in channels which promise a general conformity with the overall aims of the act. The necessary alterations in the present focus of the section to accomplish this end will be discussed later.[18]

A third benefit of statutory enactment is the degree of dependability which such a technique would assure for those who are obliged at present to copy at their peril. One of the chief vices of the present

[16] The Register of Copyrights best summed this up in describing fair use as a term that "eludes precise definition." *Revision Report* at 24; *see Hearings, Part 1* at 144-45.

[17] *E.g., compare* Bloom & Hamlin v. Nixon, 125 F. 977 (3d Cir. 1903), *with,* Green v. Luby, 177 F. 287 (2d Cir. 1909).

[18] *See* pp. 14-22 & Appendix *infra.*

status of fair use is that too many of those most in need of its protection—teachers and researchers—are too poorly versed in the intricacies of discovering common law rules to be able to act on an informed basis. A statute collects in one place all the variables which will be considered in determining a fair use and permits even the untutored and uncounselled to discover, without inordinate difficulty, the bounds of legitimate conduct with respect to making copies of protected works.

This third benefit cannot be underrated. The Hearings are replete with testimony of educators concerning the pitfalls and difficulties surrounding the present status of fair use for the average secondary school teacher.[19] While a statute may not give them all the privileges they would desire with respect to fair use, it would nonetheless fully apprise them of the scope of the privileges which were granted. It is impossible to calculate the amount of functional educational material which is not being fully employed because of the uncertainties which educators have concerning their use of copyrighted works. But even though this may not be considerable, the governing premise should be that those intended to be bound by a rule, and those most frequently imperiled by a rule, are entitled to the greatest possible access to an accurate, authoritative and concise delineation of the standards by which their conduct will be judged.

The final recommendation for statutory enactment appears to run counter to much of what has previously been stated about the effect of a statute. A legislative formulation of fair use affords the quickest and most comprehensive vehicle for reform of the present inconsistencies in the doctrine of fair use both as developed by the courts and as proposed in the pending legislation. In one stroke, Congress can correct flaws which were one hundred years in their development and would no doubt be another hundred in their cure. The exact nature and extent of these shortcomings will consume the balance of this paper, but let it suffice for the present that statutory enactment of a new fair use standard is the shortest route to their eradication.

On balance, therefore, I would argue that a statutory formulation of fair use must first purge that doctrine of its accumulated inadequacies before investing it with the permanency of legislation. Insofar as this is done, a statutory formula is clearly called for. It is disturbing both to legal sensibilities and to fundamental notions of fairness that a body of law affecting the rights of those governed by a statute should develop

[19] *See, e.g., Hearings Part I* at 144-45; Copyright Law Revision, Part 5, 89th Cong., 1st Sess. 341-43 (Comm. Print 1965).

outside the framework of that statute. The continuation of this dual regulation of both federal and common law creates constant uncertainties for those forced to operate within the ambit of the statute.

If, however, the statutory law is nothing more than a mirror of the confusing doctrine that has haphazardly developed over the years, then it serves nothing save the enshrinement of error. And this sanctification of prior error can have the further shortcoming of preventing future correction by a more enlightened judiciary. Under these circumstances, the doctrine should be left in the common law in the hopes that it will work out its present inconsistencies and develop into a more realistic standard of equitable defense. The middle road of limited acknowledgement while offering no untoward result also offers little promise since it offers the appearance of accomplishment, rather than its substance.

## Proposed Statutory Formulation

Presently pending before the Congress of the United States is a bill "for the general revision of the Copyright Law." Incorporated within this revision is a section dealing with fair use.[20] The section concerns itself with three distinct matters: (1) the status and effect of fair use, (2) the enumeration of the most common contexts in which a fair use would be in issue, and (3) a list of four factors to be considered in determining whether a particular situation involves a fair use. As such, the section is the embodiment of a concise guide for those seeking to learn their legal rights with respect to fair use. However, the fact that the section affords a concise statement by no means assures that it is a correct one. The first and third matters will be examined at length, the second creates only small difficulty and will therefore be considered first.

The enumeration of the most commonly recurring instances wherein fair use would be in issue is obviously a sound attempt to remove the doctrine from the realm of the purely theoretical. Examples are frequently the best means of clarifying legal abstracts in the mind of the layman. However, the nature of statutes is such that their contents are usually interpreted as their boundaries as well unless there is a clear indication to the contrary. There was concern voiced at the Hearings that these examples might evolve into a categorization of the full ambit of the section, and courts might be persuaded to deny the

[20] *See* note 7 *supra.*

application of fair use because the factual setting did not fall into one of those listed in the act.[21] The remedy suggested was an explanatory phrase indicating that fair use is not limited to the situations mentioned but rather that they are only some illustrations of its occurrence. This would seem to assure the continued expansion of the doctrine to embrace future methods of duplication presently unknown and unimagined without any compromise of the strengths of the section. To leave this important clarification to legislative history is to trust future courts with a thoroughness of understanding of the legislative mind totally out of proportion to their past performance in this area.[22]

*Fair Use As "Not an Infringement"*

Reflecting the language of *Folsom* v. *Marsh,* the proposed section on fair use describes a fair use as "not an infringement of copyright."[23] To understand the precise nature of fair use, therefore, it is necessary to define infringement. A dictionary would describe it as a transgression and it retains much of this meaning in the copyright context. An infringement is at least a transgression of those rights secured to an author by the copyright laws. Just how far beyond violation one must go to reach infringement is not clear, but it is apparent that not every transgression automatically establishes liability or affords recovery. It is clear from the history of copyright law that nonrecoverable infringements can occur.[24] There is ample evidence of the application of a *de minimis* which indicates that a finding of infringement need not be coterminous with liability.

This would conform to the earlier and existing statutory structure of copyright law which merely describes in very broad terms the exclusive rights of a copyright holder thereby necessitating that infringement be defined as any transgression of the enumerated rights. Obviously, then, not all the questions of liability are answered with a conclusion of infringement. Rather, it must serve as the statutory premise for application of prescribed remedies which, when the interests of fairness and justice intervene, can be refused application by a court. This is certainly the status of infringement in light of the

[21] *See, e.g.,* Copyright Law Revision, Part 5 at 96.

[22] Under ordinary principles of statutory interpretation, exceptions are narrowly interpreted. This would work against further judicial development of the doctrine.

[23] *See* 9 F. Cas. at 348 and note 7 *supra.*

[24] *See,* for example, the cases cited in note 12 *supra.*

existence of *de minimis* considerations and, this author would argue, is also true in the case of fair use. In short, infringement is a factual conclusion that the rights granted in the law to an author have in some manner been transgressed. Whether the transgression rises to the level of creating liability in the copier depends on a lack of any other intervening consideration.[25]

To describe fair use as not an infringement is to assert that it does not, in the first instance, involve any transgression of the rights of a copyright holder. It is tantamount to saying that some necessary factual element is lacking which would make the act complained of an infringement. But fair use is also described in the law as a defense.[26] Under a rationale of "no infringement" fair use appears to deny some constituent factual element of the act rather than to seek to excuse it.

Defenses at law are generally directed at one of two purposes, either to deny commission of the alleged act or to avoid liability for it by some excuse. The first category are not defenses at all in the traditional sense. Rather they are elements of the plaintiff's case in chief which he must fully demonstrate in order to establish his right to relief. To the extent that a defendant can deny one or more of the factual prerequisites of the allegation he can be said to have defended the action although it may involve no affirmative action on his part.

Besides attempting to contradict the factual components of a plaintiff's case, a defendent might also seek to avoid liability by the introduction of some considerations which offset the imposition of the penalties which normally accompany commission of the act. This type of defense is raised in rebuttal to an otherwise established cause of action. It must be affirmatively asserted by the defense because it is not a part of the act and seeks to excuse an admitted act. Unlike the first form of defense which must be proved by the plaintiff whether the defendant elects to challenge it or not, the affirmative defense is waived unless it is raised by the defense. In this respect, it in no way affects the burden on the plaintiff in establishing his case in chief.

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[25] This seems to follow the more ordinary progress of a trial of issues in that infringement can be described as raising a rebuttable presumption of liability unless there is a showing of fair use or some other mitigating factor. To withhold a conclusion of the factual existence of infringement until the defense of fair use is raised would seem to undermine the idea that a plaintiff satisfies his burden in a copyright action by establishing invasion of exclusive rights. The factual assertion of the plaintiff's case would apparently have no force in compelling a directed verdict where the possibility of fair use remains since this can negate the entire premise of the plaintiff's case in chief—a most disturbing and fortunately unapplied contingency.

[26] *See* Nimmer, *Copyright* 644 (1963).

A necessary prerequisite to asserting an excuse which avoids liability is a tacit admission of the factual elements which would otherwise impose liability. There need be no excuse for an act which cannot be proven.

Into which category of defense does fair use fall? It is this inquiry which highlights one of the internal inconsistencies of the present status of the doctrine. If one is to categorize it by its effects, then fair use denies the act and would fall into the first category of defenses. One of the most consistent tenets in the development of fair use is the fact that it negates infringement. We have already observed that infringement is not the absolute equivalent of liability but rather the factual underpinning for it. What fair use negatives is the factual conclusion of infringement.

If this is accepted as correct, then certain legal and procedural consequences will automatically flow from it. A plaintiff is required to establish every constituent element of his cause of action in order to show the infringement which entitles him to consideration for damages. In so doing he is expected to negative every contrary conclusion from the facts which could possibly contradict the factual conclusion of infringement. Since fair use can contradict this conclusion, then the plaintiff would be expected to negative the possibility of fair use in his case in chief. In other words, the plaintiff would carry the burden of proving the nonexistence of fair use in every infringement action brought. This would be so even though the present statutory framework makes no reference to any limitation on the exclusive rights secured to an author.[27]

It is quite clear, however, that fair use cannot be and was never intended to be an element of plaintiff's case. Courts are not free to alter the context of statutorily imposed burdens of proof by the simple expedient of reading limitations into a statute which is unambiguous on its face. It is quite clear that every statutory enactment of copyright protection had the express intention of enumerating every element which a protected author need show in order to establish an infringement.[28] It is preposterous to imagine that Congress would consistently

[27] This would apply with even more force to the proposed bill since it does contain a fair use section which can negate infringement and is otherwise silent on the burden of proof.

[28] *See* 17 U.S.C. § 1 (1964). This is merely a catalog of exclusive rights but it serves also to enumerate what an author must show was invaded in establishing his claim. For example, the section grants the exclusive right to copy, so a holder must show the existence of an unauthorized copy as a prerequisite to recovery.

leave out one element of infringement knowing that it would somehow be supplied by the courts.

It is also quite clear that fair use was never in practice treated as an element of the plaintiff's case but rather was always relegated to the position of an affirmative defense. In *Folsom,* it was the defendant and not the plaintiff who raised the issue of whether the use was a fair one.[29] And equally clear is the fact that the defense was raised to offset an act of copying which could not possibly be denied. The incongruity of the situation is that the *Folsom* court, and courts ever since, indulged in the patent illogic that this affirmative defense to the act could have the effect of negating the act. The net effect of this is that fair use contradicts the elements of infringement which plaintiff established in his case in chief without ever negativing any of the facts on which plaintiff's case was based.

It is not necessary that fair use take such a tortuous route to its objective of protecting the fair user. As was mentioned earlier, the application of *de minimis* standards to copyright law makes it abundantly clear that nonrecoverable infringements can occur. There is no irrevocable imposition of liability which flows from a conclusion of infringement. On the contrary, the concession of infringement permits a court to focus more readily on the appropriate subject of fair use—whether the specific facts of the situation should exempt the user from what would otherwise be statutory liability. In fact, many of the indicia of fair use suggest strong overtones of a genesis in some form of *de minimis* rule which would then necessitate the admission of infringement in order that its consequences might be measured.

The present use of consequences as the measure of the act presents obvious confusions. If the issue of infringement is still in doubt under fair use, then the effects of the copying are irrelevant to the considerations. What does it matter how much was taken or how damaging the taking was if it is still uncertain that the taking was an infringement? Thus even to examine the factors which are traditionally consulted to determine fair use begs the question of infringement. An infringement cannot be determined by looking at the extent to which it infringes. Effects either flow from the establishment of an infringement or they are necessarily irrelevant to the inquiry.

Finally, fair use developed in a setting wherein the only legal rule, the statute, prohibited all forms of copying by vesting the author with exclusive rights to copy in whole or part.[30] Allegation of a fair use was

[29] 9 F. Cas. at 347.

[30] Much of this confusion concerns the fact that equitable relief was almost

not a legal refutation of some operative element of the governing law, but rather an equitable plea that the court might not offer its authority in the imposition of liability. Fair use was not merely a defense, but an *equitable* defense, and the distinction is vital.

Equity, almost by definition, is not primarily concerned with technical conformity but rather with substantial justice. Consequently, it is only called into play where the legal formula would lead to an unjust result. If the legal status of the parties is fair, an equitable defense will not lie to alter their relationship. Since we are talking of a defense, we are talking about instances where the law would unfairly penalize a defendant charged with infringement. This could be the case only where liability will result unless the equitable rules are called into play. But for liability to result there must first be an infringement. Thus, there must be an existing infringement before a court is permitted to investigate any equitable mitigations. An equitable escape clause makes no sense if there is nothing from which to escape.

Perhaps much of this confusion can be resolved by an examination of the language of *Folsom*. Justice Story describes the issue as being whether the use constitutes a "piracy" of the copyrighted material. This is perhaps the most frequently alluded to expression when he discusses infringement. But "piracy" obviously indicates far more than a mere technical transgression of the author's rights. The word carries strong overtones of culpable conduct. It appears obvious from the context of its use that Justice Story intended it to connote that type of infringement for which there would be liability rather than any sort of infringement whatever.

Nevertheless, Justice Story somewhat carelessly uses this term almost interchangeably with infringement in the opinion. This would seem logically to indicate that he also meant something more by infringement than the mere technical transgression of the author's rights. A better description of his meaning might well be piratical infringement. Thus, he was seeking to discover whether the fair use would avoid that type of infringement from which liability flows rather than any type of infringement whatever. Any other interpretation would

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invariably sought for infringement in order to prevent future copying or to obtain an accounting. It must always be remembered that the equity court was always faced with the legal proposition that the author had the right to copy, and any copy therefore was an infringement. This was the sole legal determination to be made and any adjustments beyond that which altered the outcome were necessarily a denial of relief on equitable grounds *despite* the legal status of the parties. There was no legal exemption for partial copying, and in fact, partial copying was specifically included within the exclusive rights. *See* 17 U.S.C. § 3 (1964).

suggest that the good justice entertained equitable arguments directed at legal conclusions, a situation untenable under our present merged state of law and completely intolerable under the dual law and equity system of 1841.

Later cases merely adopted the language of *Folsom* in reciting the consequences of a successful assertion of the defense of fair use without venturing to explore whether Justice Story had attributed any significance to his choice of language in *Folsom*. Consequently, they perpetuated the language rather than the meaning and created the impression that fair use negated all fact of infringement.[31]

At this point one might properly question the significance of the entire issue of whether fair use is an excuse for infringement or a negation of it. More than one commentator has suggested that the distinction is purely academic.[32] This might well be true were fair use to continue in its common law context as an equitable defense, but present expectations of Congress are to convert it into a *bona fide* legal exemption to the copyright statute. This eventuality creates serious problems about the burden of proof to be applied under the statute. In the past, a plaintiff was expected to assert and prove all those elements of an infringement contained in the statute by negativing all factual situations inconsistent with infringement. The courts then afforded defendants an equitable defense of fair use. Now fair use would be a part of the statutory framework as a possible negation of infringement and without reference to the burden of proof.[33] It may well be that a plaintiff will, in the future, be expected to assert and prove all of the statutory prerequisites including freedom from any fair use since that is now a legal element of noninfringement. It is obviously very difficult to prophesy the treatment that fair use will receive with respect to burden of proof, but the fact that prophecy is impossible only serves to point up the lack of clarity which the statute would bring to this area. In other words, a most serious shortcoming of the proposed enactment is that it affords no certainty that a legal definition of fair use will remain in the same evidentiary status as its

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[31] Occasionally, a case will arise wherein the court followed the purpose of *Folsom,* and in so doing was usually unable to parrot the language. *See* Bloom & Hamlin v. Nixon, 125 F. 977 (3d Cir. 1903) (no *actionable* infringement).

[32] *See, e.g.,* Cohen, "Fair Use in the Law of Copyright," in ASCAP, *Sixth Copyright Law Symposium* 43, 45, 48 (1955). The Register of Copyrights also apparently adhered to this philosophy when he noted that, "We believe it would be undesirable to adopt a special rule placing the burden of proof on one side or the other." Copyright Law Revision, Part 6, 89th Cong., 1st Sess. 28 (Comm. Print 1965).

[33] *See* Copyright Law Revision, *supra,* at 25-28.

equitable predecessor. Of equal importance is the effect it will have on the fourth statutory standard to be discussed below.

*Examination of Proposed Standards*

All of the standards offered in the proposed bill are intended reflections of the common law formulation of fair use and will, therefore, be subject to the same infirmities. The degree to which one of these standards will manage to effectuate a proper application of the doctrine of fair use will depend precisely on the degree to which it retains the semblance of an equitable defense. We will now briefly examine each of the statutory factors with a view to ascertaining the degree to which they conform or conflict with the true equitable nature of the doctrine of fair use.

*Purpose and Character of Use*

This is essentially a restatement of Justice Story's criterion of "the nature and objects of the selections made." Its major salvation is that it tacitly admits that selections have been made which can only be construed as conforming with the equitable approach of admitting the infringement. Further, the factor permits examination of the public benefits which might flow from this use and thereby promote the general welfare. This harkens back to an essential constitutional justification for fair use,[34] the permission of those forms of copying which themselves promote the progress of science and useful arts.

The standard also avoids the internal inconsistency of establishing the fact in issue in order to negate it. While it is part of a section which would deny infringement, the very language and focus of the standard is equally adapted to an inquiry which seeks only to excuse infringement. To this extent it would require no alteration no matter what theoretical or philosophical alterations are effected in the balance of the section.

*Nature of Copyrighted Work*

This standard is a judicial embodiment of the waiver rationale for fair use. It permits an examination of the copied article to see if there is anything in its status which would cause an author reasonably to

[34] *See* note 1 *supra.*

anticipate that his work would be subjected to copying if its purposes were to be accomplished. The simplest example is the reference work. There the author must reasonably expect that a certain amount of transcribing of his material will occur in the ordinary and expected use of his work.[35] Once again, it is primarily equitable in focus and posits the existence of at least a technical infringement as a basis for consideration. Moreover, since it is not the copy which is here considered, the shortcomings of the doctrine with respect to admitting infringement for the purpose of denying it are not overly abused.

The waiver rationale implicit in this standard also permits consideration of liability without reference to infringement. Thus, it is possible to apply this standard in certain situations and conclude to no liability without any inquiry into the extent, or even the existence, of an infringement. The case of *American Institute of Architects* v. *Fenichel*[36] offers the perfect example. The Institute published a book of form agreements for architects and stated on the cover that the forms were "intended for use in actual practice." The district court interpreted the nature of the book and the legend on the cover as an outright invitation to copy and would entertain no elaborate inquiry into the extent of the copying done. Obviously, a court would probably hold any copy save a total reproduction of the book in "chinese copy" as a fair use without ever having to reach the extent of the infringement in any particular case. This standard would, like the first, preserve adequate equitable attributes in statutory form no matter what the general philosophy of the section might be.

*Relative Substantiality of Portion Used*

No matter how this consideration is phrased, it is still in essence the present-day equivalent of *de minimis non curat lex*. As such it is totally incompatible with a statutory section which seeks to negate the existence of infringement. This, more than any other single consideration, must posit the existence of an infringement before it can

[35] This also harkens back to the justifications offered for the doctrine with respect to implied waiver. *See* note 1 *supra*. However, this is more properly a consideration of fair use than a justification for it. Where the work is primarily intended as a source book for research, it obviously anticipates that some of the research done therein will be carried away. Still, this alone should not justify conclusive fair use any more than the assumption that telephone numbers will be copied justifies wholesale duplication of the directory. The nature of the work is only pertinent when considered in the context of the other factors such as the importance and substantiality of the taking.

[36] 41 F. Supp. 146 (S.D.N.Y. 1941).

effectuate its purpose. The only possible reason for examining the amount taken in relation to the whole work is to assess whether that amount is significant enough to warrant the imposition of liability. Unless liability will otherwise flow, there is nothing in this which will cause it to do so. Conversely, unless it is admitted that liability will flow, it is meaningless to inquire as to whether the amount taken was so insignificant that liability should be prevented from attaching.

As presently formulated, this factor would be incorporated into a scheme which would employ it to negate one of its own essential preconditions. Nowhere is it clearer that liability must be otherwise admitted than in the assertion of a *de minimis* defense. Similarly, nowhere should it be more obvious that the conclusion of fair use cannot be "no infringement" than in the situation where its application is founded on a finding that the taking was too small to merit the attention of the court. *De minimis* is a "but for" situation in its truest sense. Liability would lie *but for* the size of the taking.

I cannot, therefore, imagine a consideration of this factor in any way consistent with the result called for in the proposed section on fair use. Furthermore, to the extent that this substantiality rule is applied in the context of quantity and value rather than a qualitative framework, it takes on the appearance of a damage consideration and is completely inappropriate as a factor in assessing liability in the first instance. Any inquiry into the losses occasioned by the copying or the number of pages copied is far too mathematical a formula for an equitable defense. As will be hopefully pointed out in my recommendations, the factor must in some way be tied to the qualitative impact of the copying on the purposes and aims of the original author in his selection of that mode of expression. As Justice Story so cogently observed:

> When it comes to a question of quantity, it must be very vague. One writer might take all the vital parts of another's book, though it might be but a small portion of the book in quantity. It is not only quantity, but value, that is always looked to. It is useless to refer to any particular cases, as to quantity.[37]

Unless some method is achieved for assuring the continued reference to value rather than quantity under the proposed bill, fair use can only suffer in the long run.

### *Potential Market Effect of Use*

It is the author's contention that this consideration can only be retained, and then only in altered form, if the statutory effect of fair

[37] 9 F. Cas. at 348 *citing* Lord Cottenham and English authority.

use is changed from no infringement to excused infringement. As presently formulated, the provision is little more than a misplaced damage provision. Nothing could be more irrelevant to the determination of whether or not an infringement has occurred than the degree of economic harm that infringement has caused. Any awareness of the chronological progression of the trial of a cause of action must recognize that the consideration of damages in the context of establishing the offense not only contradicts the logical progress of first establishing liability and then proceeding to a consideration of damages, but also subjects the defendent to a double proof on the subject of the extent of the injury and also provides the plaintiff with a preview of whether he should elect the statutory damage provision in lieu of actual damages.[38]

The subsection also raises certain practical problems, especially in view of the Register of Copyright's opinion that "the fourth one—the competitive character of the use—is often most decisive"[39] in determining the applicability of fair use. The present formulation eschews Justice Story's additional factor of "supersed[ing] the objects of the original work," for a purely economic criteria geared to market impact. This emphasis on the eventual financial fortunes of the product raised serious concern during the Hearings held on the proposed bill. The most frequently cited uncertainties involved educational uses and reviews.[40]

Educators who photoduplicate portions of various texts for distribution to their classes are obviously eliminating most of that class as a potential market for the textbook. On the other hand, there is an obvious limit to the number of texts which a class will purchase or which a teacher will require for his class. This is usually determined by the ability of the instructor to obtain pertinent excerpts from various sources. An inability to copy does not mean that the students will then be compelled to purchase. Rather, the material will be dropped altogether or merely recommended, and in the process a vital teaching aid will be lost. While this writer is not advocating

[38] 17 U.S.C. § 101 (b) (1964). This provides for automatic amounts without establishment of actual damages. A plaintiff could consider the evidence proffered in support of fair use in deciding whether to take the statutory amount without the defendant ever having an opportunity to contest the amounts of these damages on the merits.

[39] *Revision Report* at 24-25.

[40] These were not the most frequently cited problems in the area of permitted copying but rather were those frequently used as examples of the inadequacies of the fair use standard. *See Hearings, Part I* at 160-62; Copyright Law Revision, Part 5, 89th Cong., 1st Sess. 100-01 (Comm. Print 1965).

different protection for authors of school texts, it is evident that this problem shows the total lack of solution offered by the economic criteria of this standard. More important here is the nature of the text in question and the qualitative substantiality of the copying done. If each of these factors support the copying, then it is irrelevant what damage has been done to potential sales since the law has seen fit to afford this limitation on the exclusive rights of the author. If economics are capable of carrying the day, then there will be few instances wherein a secondary school instructor will prevail over an economically oriented text book manufacturer.

The problem with book reviews is somewhat different. What is the effect under this standard if a book review, employing several quotes from the book, succeeds in destroying the entire market for a particular book because of a severely critical appraisal in the review? Certainly the strict language of the statute would find liability. The market has been ruined and the economic factor is usually controlling. Further, since this is the only possible negation of infringement, liability must follow naturally. The enumeration of reviews and comments as two examples of possible fair use may lend additional support to the conclusion of noninfringement, but the real villain in the piece is the application of economic factors dealing with injury to a determination of fault.

Problems such as those cited above are far from unique in their highlighting of the shortcomings of the fourth criterion. The fact that this has become a competitive analysis only magnifies earlier inconsistencies. The one saving factor of the analysis suggested in *Folsom* was that the aesthetic objectives of the author were also incorporated into the considerations. Thus, under Justice Story's rationale, one would have to weigh the degree to which the copy displaced not only what the author was trying to *sell* but also what he was trying to *say*. This at least recognizes that there is a market for ideas apart from the market for books and a copying which displaces the intellectual uniqueness of an author's expression must certainly be described as being at least as important as the substitution of his work on the shelves of the bookstore.

If fair use is to be retained as an equitable escape from the harsh language of the statute where overriding issues of fairness might dictate, then the considerations leading to fair use must retain their concern with the intellectual appropriation of an author's labors as well as the financial exploitation of his authorship. The fourth indicia of fair use fails to accomplish this in any real sense. By confining its

examination to "the competitive character of the use" it pays far too much tribute to economies which are more properly the subject of damage determinations after a finding of infringement. Further, the repeated allusions in the Hearings to this being the most decisive factor only magnify the inequities. The one redemption of the other factors is that they retain the essentials of equitable relief in that they endeavor to inspect the qualitative aspects of the use in an effort to excuse the technical infringement. To subject each of these to the controlling dominance of a market examination defeats the equitable end they seek to achieve.

## Conclusion

The foregoing examination raises certain questions about the procedural validity of the existing state of fair use as embodied in the proposed bill. As presently formulated, the writer does not believe it should be permitted to become law. The conclusion that a fair use is not an infringement, while sounding most correct and reflecting the existing judicial language on the subject, nonetheless creates serious inconsistencies in the operation of fair use as a defense and leaves unanswered the very important question of who has the burden of proof on the fair use issue. The author therefore believes that any statutory formulation of fair use, since it thereby converts the doctrine from an equitable to a legal one, must be very clear on both the legal consequences of a proof of fair use and the burden of proof in establishing a fair use.

The criterion relating to substantiality of the use, as presently framed, incorrectly emphasizes the quantitative aspects of the use and thereby is little more than a *de minimis* rule which conflicts with the conclusion of no infringement and also duplicates a doctrine which is still independently applied in the courts. Most important, the factor does not focus on the fairness of a fair use in any meaningful sense. The criterion presently pays entirely too much tribute to the magnitude of the taking without carefully ascertaining its intellectual value with respect to the whole. Therefore, the focus should be redirected toward qualitative substantiality and the indicia retained only if the legal consequence of the section is changed to excused infringement.

The fourth criterion should be stripped of all predominance over the other indicia and the economic considerations should be heavily offset with examination of the displacement of the author's objectives. If the legal conclusion remains that of no infringement, then the

fourth factor should be dropped altogether as being both a damage factor and because it would tend to ignore the equitable objectives of the defense. A market examination can only work in an equitable context if infringement is otherwise admitted. Any other approach would make the amount of the taking coextensive with the existence of liability which completely frustrates the purpose of the statutory damages provisions of the copyright law.

In an effort to demonstrate both the feasibility of these recommendations as well as their adaptability to statutory enactment, I have appended to this article a recommended section on fair use.

## APPENDIX

### Recommended Fair Use Provision

§ 107. Fair Use

Notwithstanding the provisions of section 106, the fair use of a copyrighted work shall not subject the user to liability for what would otherwise be an infringement of copyright. The reproduction may be by copying, recording, or any other means specified in section 106, for purposes such as, but not limited to, criticism, comment, news reporting, teaching, scholarship, or research. In determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include:

(1) the purpose and character of the use;
(2) the nature of the copyrighted work;
(3) the amount and substantiality of the portions taken in relation to the overall content, value and objects of the copyrighted work as a whole; and
(4) the degree to which the use displaces the demands for or the objectives of the copyrighted work.

The burden of demonstrating the existence of a fair use shall be on the party asserting it.

To the extent that prior law is consistent with the criteria enumerated in this section, it shall continue to have application to a determination of fair use. Nothing in this section shall be construed as limiting the future development of fair use consistent with the principles enunciated herein.

# The Protectibility of Spontaneous Oral Conversations Via Common Law Copyright*

BURTON D. WILLIAMS

SUMMARY

THE BASIC PURPOSE OF THIS PAPER is to give consideration to the heretofore unanswered query regarding the applicability of common law copyright to spoken material and, more specifically, to determine whether spontaneous conversations may become the subject of common law copyright even though the speaker himself has not reduced his words to writing.

This unique and timely question was posed in the famous *Hemingway* case.[1]

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* This paper, submitted in partial fulfillment of a course in copyright law, was chosen to represent the Howard University School of Law in the 1969 Patent Office Society Student Award program. The program is conducted annually under the auspices of The PTC Research Institute. The author is presently associated with the office of General Counsel, U. S. Department of Agriculture.

[1] Hemingway, *et al.* v. Random House, Inc., *et al.*, 148 *USPQ* 618, 53 Misc. 2d 462, 279 N.Y.S. 2d 51.

## BACKGROUND

BEFORE TREATING THE INDIVIDUAL CAUSES of action in the *Hemingway* case, a brief consideration will be given to some of the more salient and germane concepts as regards the common law copyright itself and its constitutional basis here in the United States.

History states that since the introduction of the invention of printing into England prior to 1450, the right to publish and sell a literary production has existed as a species of property. The earliest so-called copyright certificate in a printed book was that in the reissue of the tractate of Peter Nigrus, which was printed at Esslingen in 1475. "Common law copyright," as an expression, may trace its origin to the London booksellers in the first half of the 18th century who claimed an exclusive and perpetual right to copy and reprint certain works.[2]

By means of this common law copyright, the author is entitled to the exclusive use of his literary or intellectual production before publication,[3] and the common law copyright has existed independently of the copyright statutes.[4] The author possesses the exclusive right to determine where, when, by whom, and in what form his work should be published for the first time, or to withhold it from publication, thereby preventing others from using it without his consent and from making any unauthorized use of his intellectual property.[5] The author might, prior to publication, make copies of his production and enjoy the benefit of restricted publication without forfeiture of the right of a general publication. Falling in this category of "restricted or limited" publication are lectures to a class of students, performances of musical and dramatic compositions before a select audience, as well as private circulation of the manuscript. With the unrestricted sale of a single copy or a general publication, these common law rights might be abandoned. Proprietorship denotes the exclusive right to the beneficial use of an ascertainable subject for any lawful purpose to which it may be adapted and may exclude all other persons from such use. A qualified proprietorship exists where the right of exclusion is restricted by the right of some other person, or to a particular purpose.[6]

Therefore, the right to his unpublished manuscript is the author's absolute property and necessarily subject to his disposal, whether by

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[2] Ball, *The Law of Copyright and Literary Property*, p. 470 (1944).
[3] *Id.*, p. 471.
[4] *JPOS*, Vol. 37 (1955), p. 642, at 643-44.
[5] Ball, *supra* note 2, p. 473.
[6] *Id.*

making an absolute conveyance of his entire interest or by assigning a qualified interest therein, there being no distinction between the transfers of literary property and other types of property. Indeed, this is a right which is distinct from the material on which the author's work is written, painted or printed; it is incorporeal. The distinction between the common law copyright and the statutory copyright lies in the fact that the former is based upon the fundamental principle that everyone is entitled to the fruits of his own physical or mental labors[7] whereas the latter is more concerned with securing for public use the general benefits derived from an author's labor.[8]

Another aspect of the common law copyright concerns the so-called moral right, which is entirely independent of copyright; it is a personal right quite similar to the right of privacy. While not recognized in the United States and England, it was recognized and defined in Article 6bis of the Berne Convention as revised at Rome in 1928:

> Independently of the patrimonial rights of the author, and even after the assignment of the said rights, the author retains the right to claim the paternity of the work, as well as the right to object to every deformation, multilation, or other modification of the said work, which may be prejudicial to his honor or to his reputation.
>
> It is left to the national legislation of each of the countries of the Union to establish the conditions for the exercise of these rights. The means for safeguarding them shall be reserved to the legislation of the country where protection is claimed.[9]

The moral right, which is said to have its counterpart in our Bill of Rights, goes further than the copyright law and protects the creator at all times from both false imputation of paternity as well as unauthorized denial. The creator must disclose not only his true name but his *nom de plume* as well. The identity, as he has chosen it, is protected by the moral right. As to the judicial recognition accorded the moral right, common law protection has been based on libel, right of privacy, unfair competition—in short, a sui generis theory of tort.[10] The basic purpose of copyright in America was to offer protection only for the exploitative value of the creation, thereby affording protection to the owner as the person having the power to exploit the creation, as opposed to the creator. Indeed, the existence of the right of privacy was very limited and in some jurisdictions existed by means of a

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[7] Ball, *supra* note 2, p. 474.

[8] Berlin v. E. C. Publications, Inc., 328 F. 2d 541, 543-44 (2d Cir. 1964).

[9] Convention de Berne pour la Protection des Oeuvres Litteraires et Artistiques du 9 Septembre 1886 Revisée à Berlin le 13 Novembre 1908 et à Rome le 2 Juin 1928.

[10] Ball, *supra* note 2, p. 490.

statute which was strictly construed and never designed to protect the moral right. A tort theory of a sui generis nature proved to be the only satisfactory basis of the moral right.[11]

Another germane common law concept is that of the right of privacy. In scope, it refers to the right that a man has "to pass through this world, if he wills, without having his picture published, his business enterprises discussed, his successful experiments written up for the benefit of others, or his eccentricities commented upon in handbills, circulars, catalogues, or newspapers, and necessarily, the things which may not be written and published of him must not be spoken of him by his neighbors, whether the comment be favorable or otherwise."[12] Both in this country and in England, every adjudicated case prior to 1890 which might be said to have involved the right of privacy was not based upon the existence of such a right, but rather upon a supposed property right, or a breach of confidence or trust. Prior to that time, a claim to a right of privacy, independent of a contractual right, or some right of a similar nature, had never been recognized as a basis of decision.[13]

All of the cases which have supported the doctrine spring from a law review article published in 1890.[14] In the famous "Flour of the Family" case[15] in which the lithographic likenesses of a young woman bearing that title were, without her consent, printed and used by a flour company to advertise its goods, the plaintiff claimed that as a result of the circulation of such lithographs, her good name had been attacked and that she had been made ill and prayed for an injunction and damages. The property right which the plaintiff relied upon was the right of property which everyone has in his body. Upon appeal to the Court of Appeals of New York in 1902, where it was decided that the complaint set forth no cause of action, the court, in denying the existence of a right of privacy, said: "The so-called right of privacy has not yet found an abiding place in our jurisdiction, and, as we see it, the doctrine cannot be incorporated without doing violence to settled principles of law by which the profession and the public have long been guided."

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[11] Martin A. Roeder, "The Doctrine of Moral Right—A Study in the Law of Artists, Authors and Creators," *Harvard Law Review,* Vol. 53 (1940), p. 554.

[12] Roberson v. Rochester Folding Box Co., 171 N. Y. 538, 64 N.E. 442, 59 LRA 478, 89 Am. St. Rep. 828 (1902).

[13] Povesich v. Northeastern Mutual Life Insurance Co. (1905), 122 Ga 190, 50 SE 68.

[14] Samuel D. Warren and Louis D. Brandeis, "The Right of Privacy," *Harvard Law Review,* Vol. 4 (1890), p. 193.

[15] Roberson v. Rochester Folding Box Co., 64 App. Div. 30, 71 NYS 876 (1902).

This judgment was reversed.[16] Subsequently, a statute was passed recognizing and enforcing the right of a person to control the use of his name or portrait by others, insofar as advertising or trade purposes were concerned, thereby entitling him to restrain anyone from using his name, portrait or picture without his written consent.[17]

The existence of the right of privacy is a personal right. Where relief has been denied it has always been on the ground either that there was an adequate remedy at law or that there was no such legal right. It would appear that in connection with this right the doctrine that the jurisdiction of equity is confined to the protection of property has originated. And yet, in the leading case,[18] protection was granted to a personal right transformed by a legal fiction to a property right. As the letters appeared to have no literary value, the real inquiry was the invasion of the plaintiff's right of privacy, and a strained theory of literary property in order to protect a previously unrecognized personal right was employed by Lord Eldon. This same doctrine has received widespread application.[19]

Due to the practical difficulty of enforcing alleged common law property rights in an original and valuable plan or idea which has not been reduced to a concrete form, the courts have refused to assume protection of such rights. Therefore, though the form made and the sequence of expressing ideas in a literary form constitute a common law property right, there exists no such right in the ideas themselves therein described. However, when such idea or plan is protected by an express contract prior to its disclosure, a right of action for breach of such contract would lie.[20] Yet, though it be an original and valuable idea, it cannot be protected merely by calling the written description a "literary composition."[21] The law does not impute to the recipient an obligation to pay for the use of an idea in the absence of an express contract to compensate the owner for its use where the idea is not original and novel and has still to be reduced to concrete form. Where the owner had reduced the abstract idea to a concrete form, defining its scope and practical use and application before communicating it,

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[16] Roberson v. Rochester Folding Box Co., 171 N. Y. 538, 64 N.E. 442, 54 LRA 478, 89 Am. St. Rep. 828 (1902).

[17] Chap. 132, p. 308, of the Laws of New York, 1903.

[18] Gee v. Pritchard, 2 Swanston 402 (1818).

[19] Joseph R. Long, "Equitable Jurisdiction to Protect Personal Rights," *Yale Law Review*, Vol. 33 (1923), pp. 115, 122.

[20] Williamson v. N. Y. Central R. R. Co., 258 App. Div. 226, 16 NYS (2d) 217 (1939); Stone v. Liggett & Myers Tobacco Co., 260 App. Div. 450, 23 NYS (2d) 210 (1940).

[21] Clair v. Philadelphia Storage & Battery Co., 43 F. Supp. 286 (1941).

and prior to its appropriation by the user, he might recover upon an implied contract.[22] It is well settled that no common law[23] copyright protects against the borrowing of ideas as distinguished from the expression of ideas. Well rooted in jurisprudence is the conception that ideas are "free as air";[24] this thought is truly of ancient origin.[25]

## Constitutional Basis

There was virtual unanimity among the framers of the United States Constitution who met in Philadelphia that copyright should be included within the federal sphere. Notwithstanding the fact that the committee proceedings dealing with the Copyright Clause were conducted in secret, it is documented that the final form of the Clause was adopted without debate.[26] James Madison, in the *Federalist Paper No. 43*, stated regarding the efficacy of both copyright and patent powers that "the utility of this power will be scarcely questioned," putting the case for federal authority with respect to both copyrights and patents on the grounds that "the States cannot separately make effectual provision for either of the cases . . . ." Congress, in implementing the constitutional mandate, has limited federal jurisdiction primarily to published works, thereby not pre-empting the entire area of copyright.[27] However, the Supremacy Clause[28] prevents the states' common law copyright from invading the domain of the federal copyright law as authorized by the Copyright Clause of the Constitution. Necessarily, the nature of the constitutional provision for copyright is important regarding its impact on common law copyright.

The Copyright Clause[29] reads: "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." It is

[22] Stone v. Liggett & Myers Tobacco Co., *supra* note 20; Moore v. Ford Motor Co., 28 F. 2d 529 (1928).

[23] Fendler v. Morosco, 253 N. Y. 281, 171 N.E. 56 (1930); Weitzenkorn v. Lesser, 40 Cal. 2d 778, 256 P. 2d 947 (1953); Desney v. Wilder, 46 Cal. 2d 715, 299 P. 2d 257 (1956).

[24] Fendler v. Morosco, *supra.*

[25] This idea may be traced back at least as far as the first century A.D. when Seneca wrote that ". . . ideas are common property." Epistles 12, 11.

[26] Madison, *Debates in the Federal Convention of 1787,* at pp. 512-13 (Hunt and Scott ed. 1920); *Journal,* Acts and Proceedings of the Convention, pp. 328-29 (1819).

[27] Nevertheless, the federal Copyright Act does offer protection to certain limited classes of unpublished works. Title 17, U.S.C., § 12.

[28] U. S. Const. art. VI.

[29] U. S. Const. art. I, § 8, cl. 8.

from these 27 words that the federal power to enact copyright and patent legislation emanates. Due to the infrequency of the courts' being called upon to construe the Copyright Clause of the Constitution, and due to the lack of a real "legislative" history resulting from the secrecy of the proceedings, a vast body of case law imparting a judicial gloss is lacking.

Basically, the primary purpose of copyright is to secure "the general benefits derived by the public from the labors of authors."[30] A comprehensive statement of its purpose by the Supreme Court is as follows:

> The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in Science and useful Arts.[31]

## The Hemingway Case

In the case under discussion, the widow and the estate of the late Ernest Hemingway sought an injunction and damages against the defendant-respondent Hotchner, who authored a biographical portrait of the famous writer entitled *Papa Hemingway,* which was based on the author's notes of his conversations with the decedent, Ernest Hemingway. Mary Hemingway, his widow, also sued in a fourth cause of action to recover for asserted invasion of the right of privacy accorded to her under Section 51 of the Civil Rights Law.

This case represented an appeal from an order of the Appellate Division of the New York Supreme Court, First Department, unanimously affirming orders of the Supreme Court, New York County, at Special Term, which granted summary judgment dismissing the four causes of action, three of which were stated by the plaintiffs, the widow of Ernest Hemingway and his estate, against the publisher of the book entitled *Papa Hemingway;* the fourth cause of action was claimed by his widow, charging violation of her right of privacy under Section 51 of the Civil Rights Law.

The court took notice of the character of the close friendship which had existed during the last 13 years between Hotchner, his writing, traveling and drinking companion, and Hemingway prior to his death. Hotchner, while being a frequent visitor to the Hemingway home,

[30] Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932).
[31] Mazer v. Stein, 347 U.S. 201, 219 (1954).

maintained a professional relationship as well and adapted some of the Hemingway works for motion pictures and television. It was during these years of closeness that Hotchner made notes of the anecdotes, reminiscences, literary opinions, and other revealing commentaries about actual persons on whom some of Hemingway's fictional characters were based.

It was documented that during Hemingway's lifetime Hotchner wrote and published various articles about his friend in which he quoted freely some of this talk, with the approval of Hemingway. In fact, Hotchner was not unique in publishing quoted conversations with the great writer, and even when other writers wrote articles displeasing him Hemingway never objected.

Following the death of Hemingway, Hotchner, while drawing upon his recollections and his notes, wrote *Papa Hemingway,* and in 1966 it was published by the defendant Random House. The book was replete with lengthy quotations from Hemingway's talks as noted or recalled by Hotchner. In addition, it contained two chapters on Hemingway's final illness and, incidentally, made mention of his widow Mary.

The complaint alleged four causes of action: first, that Hotchner's *Papa Hemingway* contained literary matter composed by Hemingway in which he had a common law copyright; second, that this book would compete unfairly with Hemingway's other literary creations and constituted an unauthorized appropriation of Hemingway's work; third, that Hotchner wrongfully appropriated material which was imparted to him in the due course of a fiduciary and confidential relationship with Hemingway; and fourth, that the book invaded the right of privacy to which Mary Hemingway, the widow, was entitled[o] under Section 51 of the Civil Rights Law.

The plaintiffs moved for a preliminary injunction, following the filing of defendants' answers. The motion was denied.[82] Thereafter, *Papa Hemingway* was published, whereupon the defendants sought and were granted summary judgment dismissing all four causes of action. The resulting orders were unanimously affirmed by the Appellate Division, which granted the plaintiffs leave to appeal to the Court of Appeals, State of New York.

The first cause of action claimed that the conversations constituted not just a statement of Hemingway's ideas but were, in fact, the very form in which he conceived and expressed them and were, therefore, as much the subject of common law copyright as what might have been

[82] 49 Misc. 726, aff'd 25 A.D. 2d 719 (1966).

committed to paper by Hemingway himself. Responsive to this, the court disposed of the plaintiffs' claim to common law copyright by recalling the Hemingway himself did not regard his conversations as "literary creations" and never imposed any restrictions on either the method of accumulation or their actual usage. To the contrary, there was approval. Therefore, the court continued, the authority to publish must be implied, thereby negativing the reservation of any common law copyright.

In its further delineation, the court raised a somewhat shocking query, the question posed being whether one would have to indicate that he wanted his conversation or portion thereof restricted in order to preserve his common law copyright. The court stated that the speaker would be required to indicate that he meant to adopt the statement as unique, thereby wishing to exercise control over its publication. Absent a manuscript, protection would be accorded to some forms of conversational dialogue only if it were evidenced in some other way.

The court cited the *Jenkins* case[33] as an acceptable way in which such an indication might be made. This case represented an action for damages against the publisher of a daily newspaper by a writer who had given to the publisher a synopsis of a series of contemplated news stories concerning New York society which she proposed to write for the publisher. Subsequently, she notified him that she would not write it, whereupon the publisher published an article which was substantially a reproduction of the substance of the article which plaintiff had planned to write and had exhibited to the publisher. The court held that the published matter was a literary creation of the plaintiff, thereby making it a property right and making the publisher liable for its usage.

The court further stated that in conversational speech there should be a presumption that the speaker has not reserved any common law rights unless the contrary strongly appears.

Equating the second count to the first in that it merely attached another label to the same allegations, the court categorically dismissed it, denying that Hotchner was in any way competing with Hemingway; the latter's acquiescence in the aforementioned writings clearly disposed of such a contention. The court cited the *Hebrew Publishing Co.* case,[34] which held that the plaintiff was not entitled to injunctive relief on the theory of unfair competition in the absence of a claim of

[33] Jenkins v. News Syndicate, Inc., 128 Misc. 284 (1926).
[34] Hebrew Publishing Co. v. Scharfstein, 288 N. Y. 374 (1942).

copyright or other exclusive privilege to publish the texts of certain books or findings, as well as in the absence of evidence that defendant passed off his books as the books published by plaintiff, or of fraud, breach of trust or imposture on the part of defendant, or of some actual interference with the goodwill or business of the plaintiff. There was also no showing that any result of ingenuity or artistic competence of the plaintiff or its predecessors had been appropriated by the defendant.

It was felt by the court that the evidence disclosed nothing which would resemble a deceitful practice or "palming off," which would be a prerequisite before an otherwise lawful use of literary material might be categorized as unfair competition.

The court considered the third cause of action basically a recapitulation of the allegations of the first, with the addition of the charge that the use of the conversations between Hotchner and Hemingway was a breach of a confidential relationship. Its response to this third cause of action made clear that if, in fact, the confidential relationship did exist, of which the court was not convinced, there was no indication that the relationship envisaged or had as its subject matter the material which ultimately was used in *Papa Hemingway*. Neither the affidavits nor the complaint indicated that the scope of the relationship, alleged to be confidential, extended beyond the negotiations and the carrying out of the projects for the adaptation of Hemingway's published books and stories for television and motion pictures. Therefore, there was nothing in the affidavits from which a restriction on Hotchner's right to quote Hemingway's conversations might be predicated.

The fourth and final count, in which the widow of Ernest Hemingway alleged an invasion of her privacy, was disposed of by the court in relying upon the decisions in the *Time, Inc.*,[35] and the *Messinger, Inc.*[36] cases. There cases held that in the light of constitutional guarantees of free speech, Section 51 was not apposite to afford recovery in matters of public interest or to a public figure. It was held that "the constitutional provisions for speech and press preclude the application of the New York statute to redress false reports of matters of public interest in the absence of proof that the defendant published the report with the knowledge of its falsity or in reckless disregard of the truth."[37] Further, the *Confidential, Inc.* case[38] was cited which

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[35] Time, Inc. v. Hill, 385 U.S. 374 (1967).
[36] Spohn v. Julian Messinger, Inc., 21 N. Y. 2d 124 (1967).
[37] *Supra* note 35, pp. 387-88.
[38] Goelet v. Confidential, Inc., 5 A.D. 2d 226 (1958).

stated that "[O]nce a person has sought publicity he cannot at his whim withdraw the events of his life from public scrutiny." The court took note, with respect to the required proof of falsification under the doctrine of *Hill* and *Spohn,* that no serious attempt was made to support such a claim. This was reinforced by the court alluding to the court at Special Term, where the judge observed that counsel for the plaintiff appeared to have conceded that "no issue was presented as to the existence of 'misstatements, inaccuracies or untruths.' "

Likewise, the widow-plaintiff's further contention that the description of her feelings and conduct during the time of her husband's mental illness constituted a revelation so intimate "as to outrage the community's notion of decency" and to allow an action for damages[39] was held to be without basis.

The plaintiff widow also contended that under Section 51 she had a right of action for the invasion of her privacy not only "for the purpose of trade," which was the aspect of the statute involved in the *Hill* and *Spohn* decisions, but for "advertising purposes" as well. She maintained that the circulation of galley proofs of the book by Random House to the book reviewers of 16 journals and newspapers amounted to an advertisement of the book in advance of its publication. The court, however, suggested that the circulation of proofs of a book to reviewers failed to constitute advertisement within the meaning of Section 51. The basic purpose of book reviewing, continued the court, was to introduce the author's work into the stream of public information which is safeguarded by the First and Fourteenth Amendments.

In concluding, the court found no triable issues and thereby unanimously affirmed the dismissal by the court below, holding that the orders appealed from should be affirmed, with costs.

This pronouncement had apparently been rendered through a more than casual perusal of the well established principles dealing with the protectibility of works under common law copyright. Traditionally, any literary or artistic expression would merit common law copyright protection provided the following requirements were met: First, that the actual expression of the work had been developed beyond the point of merely being an abstract idea; second, that the work was original with its author; and third, that the work must not have been published.[40]

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[39] *Supra* note 35, p. 383 n. 7.

[40] Melville B. Nimmer, *Nimmer on Copyrights,* p. 42 (1967).

## THE DICTA ARGUMENTS

Since the statutory requirement that a work must constitute a "writing" is not applicable to common law copyright, it is possible for non-writings to qualify as literary and artistic expression and be granted common law copyright protection. However, the courts have never been willing to extend protection to abstract ideas. As was remarked in the *Procter & Gamble Corporation* case,[41] "the general rule of law is that a mere idea is not property and that any right to its exclusive use is lost by its voluntary disclosure." The court relied heavily on this reasoning that to hold otherwise would present a myriad of unsolvable problems, not the least of which would be the degree of originality of the idea with its proponents who, in fact, initially conceived of the idea. Perhaps the most significant consideration in refusing to protect abstract ideas by copyright is that it would be contrary to public policy to grant a monopoly of ideas, as this would withdraw abstractions from public usage, thereby restricting and discouraging authors and inventors from exploiting their ideas for the common good and, necessarily, limiting the opportunity for progress.

It has been argued that one need only turn to the field of drama for an insight into the implications of this; it is generally conceded that there are only a dozen basic plots and, therefore, were the law to extend its protection to ideas, there would be a rapid exhaustion of the supply of plots which would, in turn, prevent an author from writing a play without paying royalty to the originator of the basic plot. It was recalled in the *Marcin* case[42] that "if an author, by originating a new arrangement and form of expression of certain ideas or conceptions, could withdraw these ideas or conceptions from the stock of materials to be used by other authors, each copyright would narrow the field and dramatic fiction and other branches of literature would be hindered by copyright, instead of being promoted." It was maintained that this would defeat the basic objective of copyright laws, which is to promote public policy by encouraging authors to develop their ideas in usable form, and to prevent a fraud on the public by depriving it of the useful improvements and literary productions.[43]

A person's participation in oral conversation, however, when concrete and original, may be deserving of common law copyright protection.[44] Indeed, a well-developed idea can be concrete even though not

[41] Galanis v. Procter & Gamble Corporation, 153 F. Supp. 34, 37 (S.D. N.Y. 1957).
[42] Eichel v. Marcin, 241 Fed. 404, 408 (S.D. N.Y. 1913).
[43] Baker v. Seldon, 101 U.S. 99, 102-03 (1879).
[44] U.S. Const. art. I, § 8, provides: "The Congress shall have power . . . to

expressed in writing. This is the more accepted view held in the *Ulrich* case.[45]

In the case under discussion, it was felt that Hemingway's participation in the conversations should not have been protected by enjoining the publication of the biography, as it was an independent and original work product of Hotchner constituting a protectible property interest. It was averred that Hotchner gave form to the random and disconnected conversations through his arrangement in the context of the defendant author's literary creation.[46]

The court in the instant case reached its conclusions by relying on *Harris* v. *Miller*,[47] which it felt was clearly analogous. There it was claimed that conversations from the plaintiff's biography of Oscar Wilde were incorporated into defendant's play. The defendant contended that the statements which appeared with quotation marks lacked originality, therefore disqualifying them for protection. The court reasoned that what was appropriated involved style, literary quality and authorship apart from any recital of facts. The biography was the result of a literary effort in analyzing a personality. Harris was a man of recognized literary ability. It likewise appears that this method of direct discourse, instead of the narrative form, was resorted to by the biographer to vitalize the biography. Assuming the quoted dialogues were the exact repetition of the conversations between Harris and Wilde, certainly Harris' part in the conversations would be original and would have contributed to the creation of Wilde's part.[48]

The court felt that such reasoning was applicable in the instant case as Hotchner's independent and unique effort, which was expressed in his rendition, his analysis and his arrangement of the conversations, produced his own version of the Hemingway utterances.[49] Further, since it was Hotchner's own form of expression, it would necessarily be a protectible property interest dictated by public policy. Literary property in the realm of common law protection of dramatic works has as its purpose:

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promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries. . . ."

[45] Jones v. Ulrich, 342, Ill. App. 16, 95 N.E. (2d) 113 (1950).

[46] *Supra* note 1, 148 *USPQ* at 620.

[47] 50 *USPQ* 306 (S.D. N.Y. 1941).

[48] Harris v. Miller, *supra* note 47, pp. 307-08.

[49] Holmes v. Hurst, 174 U.S. 82, 86 (1899); Brunner v. Stix, Boer & Fuller Co., 352 Mo. 1225, 1231, 181 S.W. 2d 643, 645 (1944).

> To encourage men of literary ability to devote their energies to creative work, the common law seeks to assure the author that he will be the first publisher of his "original" intellectual production.[50]

## Arguments Favoring Common Law Copyright Protection of Oral Conversations

The court reasoned that certainly not all conversations should merit common law copyright protection, as such a limitation would serve to impede free expression. Continuing, it felt that if copyright protection were granted to the conversations between Hotchner and Hemingway, which apparently lacked any purposeful effort or labor on either man's part, literary development would be thwarted; the public would be the real loser of the stimulating Hemingway conversations and, necessarily, the amount of worthwhile material available for public benefit would be markedly decreased, thus being in real conflict with the basic purpose of copyright protection.

The court's decision[51] in the *Hemingway* case appears less than satisfactory in a number of respects and, at times, it would seem that no one should be expected to follow any source having as many adventures with dictum as this decision does.

With the introduction of the following, the court clearly leaves undecided the basic question whether spontaneous oral conversations are protectible; more specifically, whether one would have to indicate that he wanted his conversation or portion thereof restricted in order to preserve his common law copyright:

> Assuming without deciding, that in a proper case a common law copyright in certain limited kinds of spoken dialogue might be recognized, it would, at the very least, be required that the speaker indicate that he intended to mark off the utterance in question from the ordinary stream of speech, that he meant to adopt it as a unique statement and that he wished to exercise control over its publication. In the conventional common law copyright situation, this indication is afforded by the creation of the manuscript itself. It would have to be evidenced in some other way if protection were ever to be accorded to some forms of conversational dialogue.[52]

It suggests that in some instances oral conversations might be proctible. According to *Black's Law Dictionary* regarding dictum,

> the word is generally used as an abbreviated form of obiter dictum, "a remark by the way"; that is, an observation or remark made by a judge in pronouncing an opinion upon a cause, concerning some

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[50] *Supra* note 2, § 8.

[51] *New York Law Journal,* Dec. 16, 1968, p. 1, cols. 7-8, and p. 5, cols. 2-6.

[52] *New York Law Journal, supra* note 51, p. 5, col. 4.

> rule, principle, or application of law, or the solution of a question suggested by the case at bar, but not necessarily involved in the case or essential to its determination; any statement of the law enunciated by the court merely by way of illustration, argument, analogy, or suggestion.[53]

This is clearly the substance of the *Hemingway* decision, for the court equivocates without reaching a holding on the matter. The postulate that certain oral conversations may be protected represents a unique departure from the well established principle of common law that the author is accorded a "right of first publication,"[54] which gives him the right to enjoin the dissemination of his unpublished work.

Actually, rather than providing a true holding in this case, the court merely said that "this" type of conversation was not protectible, and rationalized this on the basis of the derived benefit to society. The question remained, however, whether spontaneous oral conversations are protectible. Indeed, the court intimated, without deciding, that in certain situations they might be. Therefore, the application of dictum in this case becomes patently circumscribed.

Aside from this, it would appear that the court's reasoning to justify denial of common law copyright to oral conversations is found grossly wanting and untenable. It is well established that some limits are placed on the freedom to publish another's words by copyright law. To permit oral conversations, where the intention is that the conversations should not be divulged, to be reported would damage the first amendment freedom of speech protection through allowance of general publication of words intended solely for a particular party. The fact that the speaker engaged in conversation would in no conceivable way seem adequate to deprive his words of the originality required for copyright protection.

An equally inept objection by the court was, in fact, the implication that Hemingway's words lacked merit or commercial value in themselves, therefore necessitating Hotchner's putting the conversations into a coherent format. And yet, history is replete with cases which show that not only may protection be granted for works totally lacking pecuniary value, but also for those works wholly without literary value.[55] As Nimmer[56] points out, even though an author has made

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[53] *Black's Law Dictionary,* p. 541, (West Publishing Co.: 4th ed., 1951).

[54] Donaldson v. Beckett, 1 Eng. R. 837 (H. L. 1774); Wheaton v. Peters, 33 U.S. (8 Pet.) 591 (1834); Palmer v. DeWitt, 47 N.Y. 532 (1872).

[55] Knights of the Ku Klux Klan v. International Magazine Co., 294 F. 661 (2d Cir. 1923); Baker v. Libbie, 210 Mass. 599, 97 N.E. 109 (1912); Woolsey v. Judd, 11 How. Pr. 49 (N.Y. Super. Ct. 1855); King v. King, 25 Wyo. 168, P. 730 (1917).

[56] *Supra* note 40 § 44 (1966).

significant contributions to a work, this provides no defense to his misappropriation of the words of another.

Though some courts have maintained that a work can qualify for common law copyright only if it is embodied in writing or some other material form,[57] leading authorities have regarded this as a misinterpretation of the principle that copyright does not attach to mere abstract ideas as opposed to concrete expressions.[58] As the basic principle is designed to ensure concreteness in the content of ideas, it does not necessarily follow that there must be concreteness in the form of the expression.

If it can be considered to have been a real decision, it would appear that the *Hemingway* case was wrongly decided, since the formal prerequisites of common law copyright were met. Therefore, notwithstanding the impressive array of dicta asserted in the narrow confines of the treatment in this particular area, namely, whether the oral conversations of a gifted writer should be protected, the writer finds that the scale should tip in favor of the granting of common law copyright protection for oral conversations regardless of the creative and literary origin.

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[57] White-Smith Music Publishing Co. v. Apollo Co., 209 U.S. 1 (1908).

[58] M. Nimmer, "The Law of Ideas," *Southern California Law Review,* Vol. 27 (1954), p. 119.

## RETROSPECTIONS

This section will include biographies and other reviews of careers, discussion and documentation of events important to the history of inventions and discoveries, and anecdotal or historical material pertaining to judicial opinion and legislation.

# Environment and Invention*

JAY W. FORRESTER

WITH DEEP APPRECIATION I accept this recognition of work done in the days when digital computers were only a shadow on the horizon. While immersed in today's electronic world and the fast pace of technology, one can hardly realize that in the late 1940's all the digital computer experts in the world could have met in this small room where we are convened today.

Your award goes to inventors—those who first conceive of new methods and devices. But we all recognize a long and difficult road between invention and successful application. Along that road many men helped in making the magnetic memory for computers a practical reality. There are too many to name each here, but to represent them let me mention William N. Papian who was the first to begin working with me in converting the basic ideas into high-performance memory systems.

* An acceptance speech delivered by Dr. Forrester on April 17, 1969, in Washington, D.C. at a reception in his honor as Inventor of the Year, an award presented to him by The PTC Research Institute. Dr. Forrester is a professor at M.I.T.'s Alfred Sloan School of Industrial Management and inventor of the Forrester Computer Memory.

Instead of giving you the history and biography leading to our being here today, I would rather discuss the inventive process and how it is influenced by today's institutions. It seems clear that invention is strongly influenced by environment. I here define invention more broadly than does the patent law, to mean all the processes of creativity and the processes of selection that choose the good ideas from the bad. Data on industrial research shows efficiencies in technological innovation that vary by more than a factor of 100 due to the organizational and work environment.

Most of the country's technical men work in industrial corporations. Yet the evidence suggests that a disproportionately high fraction of new ideas come from outside the normal corporate environment. The five recipients of your Inventor of the Year Award are consistent with that statement. Three of the five appear to have done their major work in an environment characterized by individual entrepreneurship.

But one need not limit his questioning to the commercial corporate organization. Our non-profit corporations and, increasingly our educational institutions, are acquiring the characteristics that suppress creativity. I speak of suppressing creativity because emphasis must be put on removing the barriers to innovation and not on forcing its development. An analogy is the growth of a flower. We can remove the weeds and insects and can protect from dry soil, wind and lack of nourishment. But after the obstacles have been eliminated, little more is possible except to let the plant and the flower grow.

As I see it, invention results from interaction between personality, self-interest, and environment. Psychologists tell us that the important personality characteristics are well on the road to being established by age six. Everett Hagen in his book *On the Theory of Social Change* describes two contrasting personality types—the innovative personality and the authoritarian personality. He indicates how these alternative personalities are created by the social environment. The innovative personality sees the world as governed by systems that contain cause-and-effect relationships which can be understood and can be altered. The authoritarian personality sees the world as structured into a superior-subordinate hierarchy in which the individual reacts to his environment but cannot change the environment; events occur capriciously, cannot be influenced, and therefore need not be understood.

Self-interest appears an essential component in developing creativity. And the kind of self-interest will influence the kind of creativity. If conforming to the existing situation is the only way to win approval and rewards, the authoritarian personality develops as the only one

compatible with the environment and creativity is suppressed. If published papers and filed patent applications are the only sources of reward, then creativity takes the form of new ideas without any filtering of good new ideas from bad new ideas. If the motivation is to serve society either because of financial gain or for public acclaim, then emphasis is focused on useful new ideas and discarding bad new ideas becomes as important as creating good new ideas.

The environment continuously affects innovative ability from earliest childhood. There must be encouragement of change, little or no penalty for failure, and reward for success. Also, information must be available about the need and the necessary resources.

I have been fortunate in living in and being able to find the environments that allow creativity. My road to a creative career started very early while growing up on a Nebraska cattle ranch. You have met my father who is here today. My parents permitted and encouraged mechanical and electrical innovations. A failure was seen as a good try. A success was appreciated. The environment of a frontier cattle ranch is unfriendly; incentives and self-interest force innovation if one is to survive. My early efforts ran through electric fly traps built around Model-T Ford spark coils, to a tractor-driven electric welder built from discarded automobile parts, and on to a wind-driven electric generating system. In all these the emphasis was on immediate utility. An idea was only as good as its contribution in comfort, in reducing the work load, or in alleviating the money shortage.

Invention like other skills is enhanced by practice. The self-discipline needed to discard impractical new ideas comes from the repeated experience of trying to carry ideas to a useful end result. The professional literature and the Patent Office are overloaded with useless ideas created by people who lack the experience and self-discipline to reject those which are too complex or otherwise fail to meet a human need. In my own work, rejecting the intellectually elegant but practically useless ideas has been an essential part of success. I have probably conceived my full share of useless inventions but I have filed only three patent applications, all granted and all extensively employed.

In innovation a high degree of persistence and courage are required. These can be based only on the self-confidence that comes from past successes and the belief that one's judgment is properly calibrated against reality so that he is justified in withstanding nearly universal doubt and opposition.

Let me illustrate these ideas with the example of memory devices for

digital computers. During the late 1940's many ideas were generated for storing information. But most of the ideas were inherently too expensive or unreliable. The best ideas seem clearly to correlate with the commitment of the individual to eventual use. People devoted to research for the sake of professional papers and patents produced clever inventions that never reached practice. People devoted to building a single computer for scientific calculation generated workable computer memories that lacked future potential in economy or capacity. The commitment of my group was not to publication or patents. It was to highly reliable machines to be produced in quantity for processing real-time military defense information. Again the incentive was survival. I believed that survival of my reputation, of my research organization, and survival of the country depended on a computer memory system. By rejecting lesser solutions, one was led to an information system that has prevailed for 20 years in spite of fantastic rates of technical obsolescence.

I mentioned the need for persistence and courage and the importance of an environment in which those characteristics can be made effective. With the random-access magnetic memory it took seven years to convince others in the field that the idea was superior to the memory concepts to which they had become devoted. After wide recognition of the potential of magnetic memory, a second seven years was required to convince some of those same people that they had not themselves invented the idea and pioneered its use.

I am now engaged in a comparable venture where the time delays are even longer and the value to society should be even greater. I refer to the development of concepts and methods for understanding the structure and behavior of our social systems. My new book, *Urban Dynamics*, available this week, shows how the present national policies to help the cities are actually part of creating the urban troubles we see around us. But our ideas about ourselves and our social structures will change even less easily than our ideas about technology.

Returning to invention versus organization, we can identify how today's environment works against innovation. In our urban living, little is necessary that lies within the power of the youngster to create and to build. Even a structure as simple as a garage is built by a contractor, not by the family. The excessive emphasis on book learning in schools usurps the time needed to try original ideas, to test one's judgment, and to develop self-confidence in one's own creative ability. Learning pre-digested facts can, in excess, destroy the traits necessary for innovation.

Our schools load the student with discoveries of the past until he has no time to make discoveries for the future. Our complex organizations, both those of higher education and industrial enterprise, cut him off from the breadth of experience necessary for new synthesis. The research man without personal contacts with customers cannot discover new market opportunities when his only information has been filtered through the eyes and mouths of others who recognize only past opportunities.

Today's technological production line, where an idea passes through many hands before emerging, reduces incentive, perverts self-interest into channels that do not serve society, and creates futility by blocking the freedom that the individual needs to demonstrate the validity of a new idea. The all too common tone of our organizations was illustrated recently when a research man in a large corporation was asked what were their greatest achievements. He answered that they had continued to keep their jobs for eight years. He knew he was not close enough to the source of the many corporate problems to define a useful task. And, should important new ideas be generated, he had no confidence that they would receive a sympathetic hearing at any place where favorable action could be taken.

The greatest opportunity to enhance invention lies not by direct intervention to improve the process but instead to remove the structures and methods by which we destroy self-disciplined innovation.

# Highlights in the Careers of Award Nominees for 1968

*As is our custom, we wish to share with our readers the rich information contained in the letters nominating candidates for the annual Inventor of the Year Award. Volumes 9, Number 3; 10, Number 2; 11, Number 1; and 12, Number 1 contain nomination letters for the Award candidates of previous years.*
*The background of the 1968 Inventor of the Year, Jay W. Forrester, is included in his address which appears on page 279 of this issue.*

I NOMINATE FOR THE INVENTOR OF THE YEAR AWARD a group of three inventors whose inventions during a lifetime of cooperation in a most vital field of electrical technology have resulted in the astonishing total of 431 U.S. and foreign patents, namely Dr. A. E. Anderson, Mr. Herman Bany, and Dr. H. T. Seeley.*

In an age when "electronics" has become a household word, the technologies of power generation, transmission, distribution, and utilization often may seem to the public scarcely more than an echo from history. "Generators" and "batteries" are still familiar to the public as are motors, appliances, radio components, et cetera. Yet while events like the Northeast blackout make the public transiently aware that interconnection and distribution systems of some sort must exist, the enormous importance of systems and apparatus which insure *safe and reliable continuity* of service is little realized by the public.

It is in this "total reliability" twilight zone from generation through distribution to utilization that the three have contributed so much. With Mr. Bany as single or joint inventor in 77 patents, Dr. Anderson in 72, and Dr. Seeley in 66, flowing in a steady stream from 1925 to 1966, their contributions have resulted in a total of 215 U.S. patents and an added 216 or more foreign patents, a total of 431.

Many of their fundamental early concepts were so vital, so practicable, so indispensable, that they are still in daily use. These men shared

* The above letter of nomination was submitted by Harold B. Whitmore of Vienna, Virginia.

cooperatively a constantly widening knowledge of the characteristics of a myriad power supply, transmission, distribution and utilization units with which the protective and other interconnecting systems and apparatus must cooperate. The benefits of their research and invention spread outwardly into improvement of even the supply and utilization units with which their systems dealt.

Details concerning the scope of Mr. Bany's contributions are already before the Institute, in the file of the separate nomination of Mr. Bany for the Award. (Published in *IDEA*, Vol. 12, No. 1 [Spring 1968], p. 736.)

**Herman Bany**

The fields of Mr. Seeley's earlier patents include the automatic control and protection of power rectifiers, synchronous motors, equipment for prime-mover-driven generators, Scherbius drive, capacitors, plurality of sources, systems of electric distribution, synchronous converters, and many others. The list of his inventions discloses many areas overlapping and coupling with the areas in which Mr. Bany worked. In later years, with the development of more complex systems, Mr. Seeley moved increasingly into the highly complex and sophisticated protective systems and devices.

**H. T. Seeley**

A majority of Dr. Anderson's contributions also deal with automatic switching and protective systems, especially in connection with non-rotating applications such as A-C and D-C automatic re-closing equipment, incoming lines, automatic synchronizing, transmission, and distribution circuits, capacitor banks, together with device designs, methods of manufacture, and many others. The wide and overlapping ranges of their contributions are indicated only in part by the titles of their patents, granted where patentable subject matter developed. Beyond this patentable subject matter, a study of their bibliographies shows their out-ranging research into theoretical fundamentals, and their solidly practical contributions to nationwide standardization.

**A. E. Anderson**

Many of their early inventions, now in constant actual service for nearly a half century, were the direct forebears of today's automation, major factors in electricity's exceptional resistance to the rising costs which have engulfed society in recent years, and in the almost totally reliable continuity of service which we enjoy today.

In the entire field of technological and industrial development, it is perhaps unique that three contemporaries, operating within one company but in such broadly related fields, have cooperated so closely to provide such unusual, sustained, and prolific creativity over so long a

period of time, or brought so many new and often revolutionary concepts to a long-established field of technology.

They were rarely what is commonly known as "joint inventors," although Mr. Bany does appear in some patents as joint inventor with Mr. Anderson, and also with Mr. Seeley.

Rather, as the "Top Three" or "inventive triumvirate" working with a common employer, each was immensely creative in his own field, yet benefitted constantly by interchange with the broad knowledge of the others. They had what one of the three describes as "thousands of discussions on technical subjects." They worked together on innumerable propositions, orders, and installations, on instructions and standards and guides for other engineers to afford a uniform and consistent approach for maximum benefit to all workers in related fields.

While their associates among General Electric's many switchgear engineers have made and continue to make significant, valuable, and important contributions, often resulting in patents, the number, variety, and importance of the contributions in both systems and component fields wherein this trio worked apparently have never been matched.

Individually, each of the three has been recognized by outstanding awards. Both Dr. Seeley and Dr. Anderson received G.E.'s highest honor, the Charles A. Coffin Foundation Award. Each received an honorary Doctor of Engineering degree from his alma mater. Iowa State University, which rarely, if ever, has granted an honorary degree in the engineering field, awarded Mr. Bany the only Professional Achievement Citation which it has ever given in the field of electrical engineering. In addition, Mr. Bany and Dr. Seeley are members of Tau Beta Pi, and Dr. Anderson recently has been nominated for full membership in Sigma Xi. All three are life members and fellows in the IEEE, and Dr. Anderson is a Fellow of the AAAS.

Each, like many other individuals, has been recognized individually. As a group, however, adding to the creativity of each the extraordinarily high degree of mutual cooperation and benefit which has characterized their work over their lifetime, their whole contribution seems uniquely greater than the mere sum of its parts, uniquely deserving of highest recognition by the Inventor of the Year Award.

I WOULD LIKE TO NOMINATE Mr. Eugene G. Keeton* of Trenton, Kentucky for the Inventor of the Year Award. Mr. Keeton has made a significant contribution to the agricultural equipment field with his invention. His invention is the first significant breakthrough in the method of planting corn in the last 75 years. Mr. Keeton resolutely overcame the obstacles of a limited technical education to produce an invention which the agricultural equipment companies immediately accepted. His first attempt to solve the planting problem resulted in a rejection by the same companies that took his ultimate invention and made a successful commercial product. He diligently applied himself over a period of time to perfect his invention.

**Eugene G. Keeton**

The enclosed article adequately describes the impact of the invention on a major industry.**

> Early one morning in the spring of 1964 a Kentucky farmer named Eugene Keeton walked into the old brick building that houses the John Deere Planter Works at Moline, Illinois. He carried two items with him: a mixture of seed corn and a weird contraption built out of coathangers and sheet aluminum. He was escorted to the rear of the engineering department and introduced to Harold Hansen, manager of product engineering. They shook hands, spoke together for a few moments, and then Keeton dumped the seed into his machine and began revolving a disk on which were mounted 16 small metal fingers. Each finger in turn dipped into the seed supply, pulled out a single kernel, and deftly flicked it through a port. Even though the seed mixture contained every type and shape of corn kernel Keeton had been able to find during the previous two years—rounds, flats, pyramids, and even popcorn kernels—the fingers did not miss a beat. There were no skips and there were no doubles. Within a few minutes Harold Hansen had made up his mind: this was going to be Deere's new corn planter. "I've never seen Harold want anything so badly in all his life," one of the attending engineers later commented.
>
> Hansen got his planter. On July 15 of this year, following four years of extension development, Deere announced that it was offering the farmer the first major change in corn planters since the edge-drop cells in 1901. For the first time, a practical corn planter that will handle any size or shape kernel, without seed plates, is available. There are no adjustments to be made when switching from one size seed to another; in fact there is no need even to have seed graded by size or shape. The planter will handle anything dumped into it, from wrinkled sweet corn to tiny, round popcorn kernels. And it will pluck out a single seed and place it into the

* The above material and letter of nomination was submitted by H. V. Harsha, General Patent Attorney of Deere & Company, Moline, Illinois.

** Reprinted with permission from the Fall 1968 issue of *The Farm Quarterly* (22 East 12th Street, Cincinnati, Ohio 45210) under the title "The Planter with the Magic Fingers," by Ralph Jay.

ground with almost uncanny precision. It can also plant soybeans and maize (milo, sorghum, etc.), but it uses a separate metering and delivery system for these seeds.

The planter's seed-selector mechanism looks something like a clock with 12 hands, each "hand" being a finger made of heat-treated steel. As a finger passes the two o'clock position it rides over a cam and cocks open. It moves on down to the six o'clock position where it dips into the seed and snaps shut on a kernel, holding it against the metal face. It carries this seed up to the one o'clock position where it reaches a port and ejects the seed. Should the finger have snapped shut on two kernels rather than one, there are two shallow depressions, located at the eleven o'clock and twelve o'clock positions, which cause the extra seed to fall from the finger and drop back into the seed supply. Behind the ejection port is a compartmented wheel, resembling a paddle wheel, which carries the seed down to the soil in a power-delivery system.

The planter looks deceptively simple, but it is a major creation born of an individual farmer's insight and an engineering department's professional refinements. It will help solve the thorniest problems of corn planting.

From the farmer's standpoint the most vexing problem of all is that critical task of getting the best seed planted at the best time in the best rate at the best spacing. Nothing he can do later in the season will make up for a poor job at planting time. In past years the seed plate planter did an admirable job (and in many cases it is still the best device available, as will be seen). But today, corn planting has become an exacting science and the farmer has learned how to take advantage of precision planting.

Engineers have long recognized that something better was needed for corn, and they have tried dozens of different ideas. Seed tapes have been tried, and discarded as impractical for most crops. Vacuum-pickup mechanisms have been tested and also discarded; they were subject to clogging, and they, like the seed plate, were unable to handle seeds of different size, shape, and texture. Seeds have been blown out of air guns, shoved out of ram cylinders, delivered by notched rubber belts, and even thrust into the soil while impaled on needles. Each new mechanism that has been tried has been found too costly, or too delicate, or too erratic, or too damaging to the seed.

Eugene Keeton knew none of this back in 1962. But he did know that he was unhappy with the planters that he and his brother were using to put in some 450 acres of corn on their Elkton, Kentucky, farm. He was conscious of the need to get a precise stand, and he was equally conscious of the trouble he had each year matching plates and seed. And he was particularly irritated over the fact that he had just been forced to replant some 30 acres of corn because his planters had plugged up even with the recommended plates. He decided then and there to build a better planter.

Keeton hardly looks the type to undertake a job that has frustrated the best engineering minds in the country. He is 42 years old, married, father of two girls, and a polite, restrained man with a balding head and a soft but slightly high-pitched voice. He is well known in the community, a member of the local Baptist Church, and

in all respects seems a very ordinary man. He has no engineering background and although there is a farmshop over by his brother's place, he is not one of those farmers who endlessly build, rebuild, and modify machinery. His grounds are remarkably free of the usual clutter of machinery. He has a shed under which he parks his equipment, a garage in which he parks his car, a small collection of grain bins, and a modern home perfectly styled for the city suburbs.

Despite appearances, Keeton had two things going for him. First, he is a very good corn producer, meaning that he tries to do everything exactly as it should be done. Second, he has a quiet streak of stubbornness that makes him keep after a problem until he finds an answer. So in 1960, dissatisfied with the continual problems of seed plates, he began wondering what type of planter would do a better job.

"All I intended to do was build a faster, more accurate planter," he explained early this summer. "I wasn't even thinking about a planter that would handle all sizes of seed corn. I put together a model that used a rubber belt with half-moon holes in it to take the seed standing on end. It promised to work pretty well, so I had an attorney begin a patent search and I wrote some equipment companies to ask if they were interested."

Keeton learned from his attorney that rubber belts had been used in some vegetable planters, and that there was nothing novel about the idea. He learned from the equipment companies that he was attacking the wrong problems. "The companies taught me that the problem was not so much one of putting the seed into the ground as it was of grading and sorting the different seed. The rubber belt had to be changed for various sizes of seed, and it left as many problems as it solved. So, I decided that if the major problem was the many different kinds of seed, then I would build a planter that would handle any size seed. I had learned that the planter hadn't changed since about 1901, so I figured it was time for a change."

Thus, in an ordinary, matter-of-fact manner, Keeton began working on another planter. He set two goals: design a unit that would handle any seed corn, and design it so that it would require few of the adjustments, calibrations, or changes that so often cause mistakes at planting time.

By the fall of that year he had made no progress. In fact, he had no clear idea of any kind. He was basically spending his time just thinking about the problem. "I kept asking myself, what kind or shape of mechanism would handle all the different seed corn?," Keeton said. "And I learned that this was really complicated. I never knew there were so many different configurations to corn kernels. For months I collected every one I found. I wrote the seed companies, and they were wonderful; they sent me samples of all their seed. I ended up with hundreds of samples of seed. I'd look at these and play with them, but I still couldn't get an idea."

By this time the problem had become part of his daily life. He thought about planters all through the day, and he occasionally dreamed about them at night. No matter what he was doing, his mind drifted back to planters. And, he confesses now, he did some of his best thinking during the Sunday morning sermon. "We had a different pastor then," he hastily explains.

Appropriately, however, he found his solution while he was farming. "I was harvesting the corn with the picker-sheller and thinking about a shape that would handle any size seed," he said. "Suddenly it came to me. A V-shape is continuously variable in size. Any seed from the maximum size to the minimum size will fit into some point along the V. I was so sure I was right that I stopped the picker in the middle of the field and sat there thinking. I wanted to test the idea right then. The only thing at hand was cornstalks, so I grabbed one and whittled it up. I crossed a couple of thin pieces of stalk to make a V, sort of like a pair of pliers. Then I crawled up on the picker and jammed this into the grain tank. Every time I pulled it out I had one kernel. I kept on jabbing and I always came up with one kernel, regardless of the size and shape of the kernel."

This burst of insight gave him the key, but he still had a long way to go to convert the principle into practice. He soon decided that a series of V-shaped fingers mounted on a revolving disk was the best method for getting rapid, consistent seed selection. So he began building fingers. And he built them by the hundreds. "Nobody would believe how many of those things I made," Keeton said, "or how many weird shapes I tried. Sometimes I'd spend two or three days just filing one finger into a shape that I thought would work, and then I'd test it for five minutes and have to throw it away and start on another one. I worked out in a corner of the garage until the weather got cold, then I moved into the kitchen. I cut out a lot of fingers and I cut up my wife's table and had to buy her a new one. But I gradually learned that the V didn't have to be very large, that all it had to do was hold the kernel against a metal facing. Once I got the V I had a lot of trouble getting the right tension. I tried everything from spring steel to fancy aluminums. It was only when I quit being sophisticated and started using coathangers that things fell into place. I tried them because I had run out of every other metal. They were perfect. They weren't too brittle and they weren't too soft; they had just enough carbon to give the right tension. I'd simply double one into a long U-shape, then bend a crimp in it for the seed. Pretty soon I had what I wanted. I'd stand there and crank the disk around and no matter what seed-corn mixture I used, it clicked out single seeds."

During the winter of 1962-63, Keeton had another patent search made and subsequently applied for, and received, his patent. About the same time he sent letters and photographs to all the tractor manufacturers, even though he wanted the planter to be produced by either Deere or International Harvester. "These were the two big boys," he said. "They had the engineering ability and they had the dealers. But I was astounded when almost every company got excited over the planter. Company representatives came to my farm, some of them ready to talk contracts. But International and Deere moved more slowly, particularly Deere. Finally International asked for a model and I took it up to Chicago in early 1964. They were ready to talk terms. But about that time Deere showed some interest. So I decided to take a model over there before signing anything. The truth is that I was just a little bit partial to Deere because I've always used their equipment. But I'd have been happy to go with International."

YOU MAY SUBMIT THE NAME of Dr. B. P. Block* for the George Washington Patent, Trademark and Copyright Research Institute Award for Inventor of the Year.

**B. Peter Block**

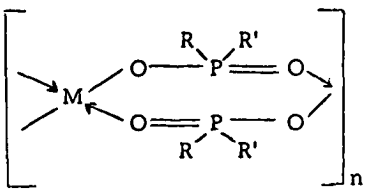
Dr. Block is one of Pennsalt's chemists who received the 1968 Philadelphia Section award of the American Chemical Society for original work in synthesis of coordination compounds and of inorganic double-bridged polymers.

Dr. B. Peter Block is one of the leading authorities on inorganic polymer chemistry. His research in this field has received international recognition by inorganic and coordination chemists. It has contributed a large fundamental advance in the preparation and characterization of high molecular weight inorganic substances and has led to worldwide activity following up his pioneering discoveries.

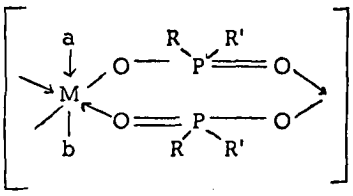
Early in 1958, shortly after joining Pennsalt, Dr. Block first proposed research on the synthesis of inorganic polymers by polymerization of inorganic coordination compounds. His concept was original: to form polymers by creating coordinatively unsaturated entities which can satisfy coordination requirements only by polymerizing.

Active laboratory study of his ideas, under a program partially supported by the Office of Naval Research, was begun later in 1958. Early results on the reactions of beryllium and chromium acetylacetonates with diphenylphosphinic acid led to dimers. Further work led to the synthesis of double-bridged structures such as that of the zinc phosphinate polymers. Since then, many high molecular weight (10,000 to > 100,000) coordination polymers have been synthesized and characterized by Dr. Block and his co-workers with the mainstream of his work really developing within the past five years. In all of this research, Dr. Block has been the principal investigator or has personally directed the work.

The most promising types of polymers which have been disclosed by Dr. Block's research to date are based on (1) tetrahedral metal coordination centers and (2) octahedral metal coordination centers double-bridged by oxygen-phosphorus-oxygen groups:




and




* Robert G. Danehower of Pennsalt Chemicals Corporation, King of Prussia, Pennsylvania, submitted the above letter of nomination and enclosed material.

The double-bridged structure and the eight-membered rings confer stability and flexibility to the backbones which are substantially linear and which, with octahedral centers, may have a zig-zag or spiral conformation. The substituent groups on the phosphorus (R and R') may be varied to modify the properties of the polymers and, in the case of octahedral centers, the substituents on the metal (a and b) provide for further variations.

The general structures described above represent only part of a large number of polymers conceived and explored by Dr. Block and his group. Thus, example (1) can be represented as $[MX_2]_n$ where M is a bivalent tetrahedral metal and X a bridging group with charge of minus one. Example (2) can be represented broadly as $[M(a)(b)X_2]_n$ where M is a trivalent octahedral metal, a is a neutral unidentate ligand, b a uninegative unidentate ligand and X a bridging group with a charge of minus one.

Many other polymer types have been investigated in Dr. Block's program. For example, those which have been reported are: $[M(AB)X_2]_n$ where M is a trivalent octahedral metal, AB a uninegative chelating group and X a bridging group with a charge of minus one; $[M(AA)Y]_n$ where M is a bivalent tetrahedral metal, AA a neutral bidentate ligand and Y a bridging group with a charge of minus two; $[M(BB)X_2]_n$ and $[Mb_2X_2]_n$ where M is a quadrivalent octahedral metal, BB a doubly negative bidentate ligand, and b and X as before; $[MOX_2]_n$ where M is a quadrivalent metal with a coordination number of five and X as before; and $[MX_3]_n$ where M is a trivalent octahedral metal and X as before.

Synthesis of these new polymers has been achieved by various methods including reaction in solvent(s), sometimes with extractive distillation to introduce one of the reactants; fusion and extraction; high speed agitation of homogeneous solutions of reactants in a mutual solvent; or by interfacial polymerization by agitation of solutions in immiscible solvents. The types of reactions studied include (1) condensation polymerizations including homocondensations and heterocondensations, (2) addition polymerizations including elimination-addition, substitution-addition, oxidation-addition, redistribution-addition and rearrangement-addition; and (3) degradation polymerization.

The elucidation of the structures of these polymers by infrared spectra of normal and deuterated samples, and the determination of molecular weights by vapor pressure osmometry, ebulliometry, light scattering and intrinsic viscosity measurements were performed with Dr. Block's collaboration. These studies were far from routine; many

of the inorganic polymers discovered by Dr. Block and his co-workers have proved difficult to define by elemental analysis or the usual methods for determining molecular weight and structure of polymers. One example of the problem encountered is that the degree of polymerization of samples of $\{Cr(H_2O)(OH)[OP(C_6H_5)_2O]_2\}_N$ gradually increases in solution. As at result it is difficult to obtain reliable results.

The poly (metal phosphinates) constitute a family of polymers with a wide spectrum of properties. They range from viscous liquids at room temperature to nonmelting solids. Key factors in determining the properties of these polymers are the coordination center and the side groups on the phosphorus. Appropriate choices offer the possibility of tailoring polymers for a variety of applications. Zinc methylphenylphosphinate polymer is a glassy solid which melts at about 100°C and is a stable liquid up to about 400°C. The 1:1 copolymer of zinc dibutylphosphinate and zinc dioctylphosphinate is a plastic solid with an unusually low $T_g$ of about −100°C. It also melts somewhat above 100°C. Hydroxyaquochromium (III) diphenylphosphinate polymer is a nonmelting solid which can be cast from solution. It starts to decompose in air at about 355°C. Chromium (III) bis (methylphenylphosphinate) mono (dimethylphosphinate) can be reaction cast into films with tensile strengths of about 7000 p.s.i. that that start to lose weight at about 490°C in nitrogen.

Composition of matter patents have issued for some families of poly (metalphosphinates) and applied for in other cases. The potential utility of the poly (metalphosphinates) is broad. Preliminary results have been promising for their use in antistatic coatings, lubricants, protective coatings, and composites in addition to bulk polymer uses.

Dr. B. Peter Block, Group Leader, Contract Research Department, joined Pennsalt in 1957 after five years as Assistant Professor of Chemistry at the Pennsylvania State University. He obtained his undergraduate training as a National Scholar at Harvard University from which he was graduated, cum laude, in 1944. After taking his M.S. at the University of Tennessee, he completed his post graduate work at Purdue University and at the University of Illinois as a Graduate School Fellow. Upon receiving his Ph.D. from the latter in 1949, he joined the faculty of the University of Chicago and, in 1952, received his appointment to the faculty of Penn State where he taught advanced courses in inorganic preparations, the chemistry of the less familiar elements and coordination chemistry. In 1955 he received the DuPont Summer Teaching Award.

Dr. Block has been honored by election to membership in Phi

Kappa Phi, Phi Lambda Upsilon and the Society of the Sigma Xi. His other memberships include Alpha Chi Sigma and the American Chemical Society. He was an abstractor for Chemical Abstracts 1949-57 and chaired symposia on Inorganic Polymers at the 136th National ACS Meeting in 1959 and on the Structure of Inorganic Compounds at the 149th National ACS Meeting in 1965. He has lectured before several local sections of the ACS and has been active in the Physical-Inorganic Group and the Education Committee of the Philadelphia Section. He has published numerous papers and reviews and holds eight patents.

The field of coordination polymers is in its infancy. Dr. Block's discovery of flexible, tractable and potentially useful materials of high thermal stability, comprising a wide variety of double-bridged linear polymers in which there is no carbon in the backbone, has opened a new field of chemistry. Through continuing efforts by him, his co-workers and others inspired by his work these materials should, one day, fulfill significant human needs.

# REVIEWS AND ANNOTATIONS

## Recently Published or Reported Material Relating to the Research Institute's Work

### Books

Bodenhausen, G. H. C., *Guide to the Application of the Paris Convention for the Protection of Industrial Property as Revised at Stockholm in 1967,* Geneva: United International Bureaux for the Protection of Intellectual Property (BIRPI), 1968. 255 pp.

This informative guide to the application of the Paris Convention should prove particularly useful for those concerned with questions of interpretation relating to the articles of the Convention. Despite the author's assumption of personal responsibility for the views expressed in the guide because "the International Bureau, which is entrusted with the administration of the Convention, is not competent to determine how it should be interpreted," his position as Director of BIRPI makes his observations singularly authoritative.

The contents of the book are composed of five chapters: I. Introductory Observations, II. History and Principal Rules of the Convention, III. Commentary on the Articles of the Convention, IV. Text of the Paris Convention for the Protection of Industrial Property, as revised at Stockholm in 1967, and V. Member States of the International Union for the Protection of Industrial Property (Paris Union) as on April 1, 1968. It is to be hoped that this detailed and carefully prepared book will eventually be indexed.

To give our readers an appreciation of the scope of this work and the sentiments of the author, the short chapter on Introductory Observations is quoted:

"The number of States party to the Paris Convention for the Protection of Industrial Property has increased rapidly in recent years: on January 1, 1963, 51 States had acceded to the Convention; On January 1, 1968, this number had risen to 79. A further increase may be expected in the near future, as many States are known to be studying or preparing their accession to the Convention. In view of these facts many more governments, national administrations or courts, practitioners, inventors, and industrial or commercial enterprises will have to apply, or may request the application of, the Con-

vention than ever before. It has therefore appeared useful to establish a concise Guide, briefly commenting upon the principal provisions of the Convention and indicating replies to the main questions which may arise from day to day in relation to its application.

"Since the International Bureau, which is entrusted with the administration of the Convention, is not competent to determine how it should be interpreted, the views expressed in this Guide are only those of the author. The International Bureau has limited its role to the publication of the Guide in view of its presumed usefulness.

"The purpose of the Guide is to deal in a very simple manner with the principal questions relating to the application of the Convention. For that reason, theoretical considerations have been omitted, other literature is only occasionally mentioned, and national legislations and case law are cited only as examples. Another reason for these latter limitations is that the author's knowledge of languages is unfortunately limited, so that laws, administrative or judicial decisions and legal studies not published in any language known to him will probably have escaped him. In these circumstances, a certain lack of balance would exist if much attention were given to publications in one language and none to equally important publications in another.

"The Guide comments on the Paris Convention as revised at Stockholm in 1967. The Stockholm text is not yet in force at the time of publication of the Guide, but it will no doubt soon become the text of the Convention adhered to by many countries. Since, moreover, with one exception (addition of Article 4 I (1) and 2)), the Stockholm text of the Convention differs from the preceding Lisbon text only in the administrative and final clauses (Articles 13 to 30), the Stockholm text seemed to constitute an appropriate basis for a commentary. This commentary is based on the official text of the Convention in English, established in Application of Article 29(1) (*b*) of the Convention, a text which presents some differences as to form with the former official English translation of the Lisbon text.

"The Guide, after briefly sketching the history and the principal rules of the Convention, comments upon each of its articles and paragraphs separately."

Lang, William, *Foreign Patent Laws with Comparative Analysis,* edited by Worth Wade, Ardmore: Advance House, Inc., 1968, 1074 pp., $27.50.

This is a commendable undertaking. The author lives up to

the promise in his introductory statement that from the work "a fair understanding can be more readily obtained of the relative laws of the several countries with respect to selected areas of interest." Solid pieces of information are distributed throughout the book, and similarities and differences among the foreign laws are clearly evident. Reliance is placed primarily on the quotation of foreign statutory material with the addition of relatively short comment. The book should become more and more useful for compact reference purposes as it achieves a larger segment of foreign patent laws and provides additional comment and analysis. To this end, the author proposes to supplement the present work from time to time by the inclusion of additional countries as well as international conventions and accords. Although the countries already included are important to U.S. foreign trade and the introductory comments to the sections interesting and informative, such augmentation should increase the usefulness of the book as a handy guide.

The contents of the manual are divided into three parts: (1) Topics of interest prior to filing: statutory subject matter, novelty, employer-employee relations, filing fees and annuities, priority rights, prior user, kinds and terms of patents. (2) Topics of interest during prosecution: conflicts, oppositions, secrecy, claims and scope of the patent, inventor's right to be mentioned. (3) Topics of interest after granting of the patent: Patent data on printed copies, compulsory licensing, nullity, licenses of right, marking, expropriation, infringement. There is also a final section on qualifications of patent agents. It is suggested that an index be added to make the material in the handbook more readily accessible.

On the whole, the author is to be congratulated for making this work public and for his plans to keep it current.

## Periodicals

Abelman, Lawrence E., "Trademarks in Western European Countries," *The Trademark Reporter,* Vol. 58, No. 12 (December 1968), p. 879.

"There are 26 trademark jurisdictions in Western Europe consisting of 19 major commercial countries and 7 minor jurisdictions. The trademark laws of the United Kingdom and Ireland are based on common law concepts and in these jurisdictions use of a trademark is normally more significant in creating rights than the act of registration. The other jurisdictions involved are essentially 'registration countries'—countries in which registration of a trademark is attributive of

rights to a mark, or countries in which changes in the laws are contemplated so that rights will belong to the first party to file."

Abrams, Alan M., "Copyrightability of Non-Copyrightable Forms," *Journal of the Patent Office Society,* Vol. 51, Nos. 1-2 (January and February 1969), p. 106.

"It often is generally stated that blank forms and related materials such as legal documents, accounts books, or graphs are not subject to statutory copyright. It is the purpose of this report to review a few of the leading cases in this area to determine the correctness of this statement and the reasoning of the Courts in determining the copyrightability of such materials."

Ahrens, Michael H., "The Misappropriation Doctrine after Sears-Compco," *The Trademark Reporter,* Vol. 59, No. 2 (February 1969), p. 88.

"To determine the effect of the *Sears-Compco* decisions on the misappropriation doctrine, this comment will look at the *INS* case, the *Sears-Compco* decisions, and the broad and narrow interpretations given the *Sears-Compco* decisions, and the broad and narrow interpretations given the *Sears-Compco* cases concerning misappropriation. This growing conflict in the federal courts points to a question which must soon be resolved by the Supreme Court: whether the *Sears-Compco* cases overruled the misappropriation doctrine of *INS.* The comment will then look to the proposed revision of the copyright laws to see whether the entire misappropriation doctrine will be preempted by federal statute when and if the revision is passed by Congress."

Bean, Ernest K., Chapman, Leland L., Fisher, Thomas E., Kramer, Jerome T., McCartney, Alan N., Meyer, Harold S., Pearne, John F. (Special Committee on Revision of the Patent Laws, Cleveland Patent Law Association), "Post Issue Proceedings—Worthwhile Or Not?" *Journal of the Patent Office Society,* Vol. 51, No. 4 (April 1969), p. 245.

"Post issue proceedings would seem to have only minimal value in improving patents, would seriously diminish incentives to invent and invest because of the prolonged uncertainty as to status of the patents, would be beneficial primarily to infringers rather than to patentees and honorable competitors, and would invite misuse of such proceedings by competitors for extortion of patent rights.

. . . .

"Post issue reexamination for novelty can be replaced by providing for open citation of prior art by anyone at any time, thereby putting the patentee and the public on notice, but requiring

no action unless the patentee chooses to disclaim or reissue.

"Post issue taking of testimony for determining questions of fact can be removed entirely from the Patent Office to the courts with no adverse consequences. Determining the existence of prior public use or sale as a bar to patenting is almost always reserved for trial in the courts now. Most priority contests (interferences) are disposed of now without taking testimony. Requiring testimony to be presented to a court in the few remaining cases would appear beneficial to the litigants and the public."

Beier, Friedrich-Karl, "Recent Changes in German Patent Law —The Introduction of Deferred Examination and Protection of Inventions Relating to Chemical Substances" (unpublished).

"I would like to report to you on the two most important changes in German Patent law with which we were presented last year by the law of the 4th September 1967: the deferred examination of patent applications and the introduction of protection for inventions relating to chemical substances, medicines and foodstuffs. I will only deal with the basic features and will not bother you with too many details. It seems to me more important to present to you the objects of the reform and its background, and critically to examine whether it involves not only new and obvious, but also progressive and useful solutions, which fit into the general trend of international development. Is this merely a case of a national experiment for resolving an acute crisis or also a useful model for the European patent law of the future? It is doubtful whether we are in a position to answer this question at this date. A definite answer will only be possible in a few years time, after some experience has been gained."

Belkin, Bernard, and Crisman, Thomas L., "Date of Invention: The Varying Standards of Proof," *Journal of the Patent Office Society,* Vol. 51, Nos. 1-2 (January and February 1969), p. 84.

"Proof of the date of invention may be required in resolving two distinct issues. The first is whether a claimed invention is patentable over the prior art, and the second is whether an applicant or patentee is the first inventor of the claimed invention. These issues may arise initially in the Patent Office in the determination of an applicant's right to a patent, or subsequently in a federal court's determination of the validity of a patent. This Note will examine and compare the standards of proof applied in each of these proceedings and evaluate them in view of the nature of the proceeding and the issues to be resolved."

Berlowitz, Walter, "Patentability of Structurally Obvious Compounds," *Journal of the Patent Office Society,* Vol. 51, Nos. 1-2 (January and February 1969), p. 56.

"It is the purpose of this paper to show that the Patent Office position is correct in the sense that in order for a claim to some physical entity (the process, machine, manufacturer, or composition of matter of 35 U.S.C. 101) to be patentable, then the physical manifestation of that entity, considering all of its aspects as a whole, must not have been obvious to a person having ordinary skill in the art, to which said physical entity pertains at the time the invention was made, in accordance with 35 U.S.C. 103. All of the various tests to guard against a hindsight conclusion of obviousness should be applied. The tests for obviousness should be as objective as possible and the mental ideas responsible for the physical aspects of the entity should be carefully weighed, but in the last analysis the comparison for obviousness must be between the prior physical entities and the claimed physical entity. Thus, if the claimed compounds in the *Deutsche* case, the *Papesch* case and its relatives are truly structurally obvious in comparison to the prior art, other considerations, e.g. unexpected utility, should not make them patentable. Other considerations might cause one logically or emotionally to decide that something actually is not structurally obvious in comparison to the prior art though to the uninformed, it might appear so, but the legal principle requiring structural unobviousness should not be shaken by such decisions."

Bernstein, Benjamin, "Analysis of Federal Government Rights and Interests in the American Patent System," *New York Law Forum,* Vol. 14 (Fall 1968), p. 516.

Buckman, T., "Protection of Proprietory Interest in Computer Programs," *Journal of the Patent Office Society,* Vol. 51, No. 3 (March 1969), p. 135.

"The problems and questions raised by the *In re Prater* decision and the problems stated due to lack of protection for software point to the fact that protection is perhaps needed but not in the form of patents as we know them today. What is needed is a concerted, unemotional effort by the software industry to define its terminology and specific desires. The industry must realize that a broad inclusion of programs in the patent system must necessarily have implications on the patent law in areas far removed from the data processing area. The position of the Patent Office has not been an effort to make programmers 'second-class citizens' as suggested

by one industry spokesman, but merely an effort to safeguard the patent system from deleterious effects of blanket protection for an illusive, undefined article of commerce, i.e. programs. The Patent Office is aware of the problems and desires to give programmers the benefits accorded to other inventors, but in doing so they are afraid of 'winning the battle but losing the war'—the demise of an effective patent system. It is with these points in mind that the amalgamate registration system is proposed and it is hoped that the Patent Office and industry alike will adopt it and cease to follow the path of destruction started in the *Prater* decision."

"Capital Gains Treatment of Proceeds from Patent Transfers," *Missouri Law Review,* Vol. 34 (Winter 1969), p. 98.

"CATV and Copyright Infringement," *Boston College Industrial and Commercial Law Review,* Vol. 10 (Winter 1969), p. 459.

Clay, F. W. H., "The Relation of the Examiner to the Inventor and His Attorney," *Journal of the Patent Office Society,* Vol. 51, Nos. 1-2 (January and February 1969), p. 34.

". . . It has from time immemorial been a settled principle that a judge should be uninterested in either of the parties to the contest. The fact is that the patent law, by reason of the peculiar nature of the property with which it deals, is seemingly out of harmony with the democratic theory of government. And yet the condition is inevitable. What I wish most to impress upon you, is that the seeming inconsistent attitude of the examiner is one of seeming only, and that when looked at from the right point of view the interests of the inventor, his attorney, and the examiner are, or should be, substantially one and the same.

"Let me try to explain why this is so, and how it results from the nature of the property in inventions. The point will appear from a careful consideration of the reason for the patent law."

"Copyright Fair Use—Case Law and Legislation," *Duke Law Journal,* 1969 (Fall), p. 73.

Cordero, Alfredo, "Chilean Trademark Practice," *The Trademark Reporter,* Vol. 58, No. 12 (December 1968), p. 870.

"During the last few years various South American countries have undergone changes in their industrial property legislation or procedure.

"Argentina and Uruguay have adhered to the Paris Convention; Peru has adopted the International Trademark Classification; Brazil has enacted a new law.

"In Chile there have been no changes. The text of the law of

1925, relating to Industrial Property which was promulgated by Government Decree No. 958 of April 8, 1931, is still in force without modifications. The Government has not ratified the Pan American Conventions nor adhered to the Paris Convention.

"A proposal for amendment of the law on industrial property was approved a few years ago in the House of Representatives but lies dormant in the Senate. It is in the field of application of the law where some changes have taken place.

"Before analyzing these changes it is convenient to consider the basic practice of the Chilean Trade Mark Law."

Donenfeld, A. G., "Property or Other Rights in the Names, Likenesses or Personalities of Deceased Persons," *Bulletin of the Copyright Society of the U.S.A.*, Vol. 16 (October 1968), p. 17.

"Effect of the Fair Use Doctrine on Textbook Publishing and Copying," *Akron Law Review*, Vol. 2 (Fall 1968), p. 64.

Evans, J. M., "Passing-off and the Problem of Product Simulation," *Modern Law Review*, Vol. 31 (November 1968), p. 642.

"Federal Communications Commission's Fairness Regulations: A First Step towards Creation of a Right of Access to the Mass Media," *Cornell Law Review*, Vol. 54 (January 1969), p. 294.

Fey, Dorothy, "The Name of the Game: Trademarks," *The Trademark Reporter*, Vol. 59, No. 1 (January 1969), p. 19.

"The past few years have seen an amazing period of diversification and expansion resulting in an unprecedented number of new products on the market. More than anything, the 'new product' era has taxed the trademark experts who are called on to create distinctive marks that do not duplicate or conflict with marks already in use.

. . . .

"What follows is an attempt to reduce the complex overall picture into a thumbnail sketch highlighting some of the major considerations in dealing with the trademark spectrum."

Fisher, Larry R., "The Misuse Doctrine and Post Expiration-Discriminatory-and Exorbitant Patent Royalties," *Journal of the Patent Office Society*, Vol. 51, No. 4 (April 1969), p. 215.

"Because the patent misuse doctrine has been applied to a variety of activities, this note will be limited to the current developments in relation to patent royalty practices. More specifically, this note will survey the decisions dealing with post-expiration royalties, discriminatory

royalty rates, and exorbitant royalty rates."

"Fraud on the Patent Office: A Source of Antitrust Litigation," *Duquesne Law Review,* Vol. 7, (Fall 1968), p. 107.

Frishauf, S. H., "Regulation Governing Licensing and Other Industrial Property Agreements of French Citizens, or Organizations with Foreigners," *Antitrust Bulletin,* Vol. 13 (Winter 1968), p. 1521.

Goldstein, P., "Federal System Ordering of the Copyright Interest," *Columbia Law Review,* Vol. 69 (January 1969), p. 49.

Greenfield, Michael M., "Trademarks—Prior User and Prior Registrant of Similar Trademarks Are Entitled to Registration Only for Their Geographic Areas of Actual Use," *The Trademark Reporter,* Vol. 59, No. 2 (February 1969), p. 82.

"Concurrent registration is merely an exception to the Lanham Act's emphasis on national trademark rights. Therefore, in concurrent use disputes the Patent Office and the courts should honor the spirit of the Act by prescribing registrations that cover the entire United States. Moreover, the common law and the Lanham Act indicate that the prior user should be entitled to registration for the whole country except for the area in which the subsequent user has employed the mark. An agreement between the parties that gives the subsequent user dominant registration should be rejected only when protection of the public demands its rejection."

Hallmann, Ulrich C., "The New German Patent Examining Procedure," *Journal of the Patent Office Society,* Vol. 51, Nos. 1-2 (January and February 1969), p. 4.

"The Act for the Amendment of the Patent Act, the Trademark Act and other Acts was published in the Federal Gazette No. 56 of September 9th, 1967.

"By passing it, the Bundestag enacted the most important modification of the German patent examining procedure since 1877, and thus put an end to the violent discussions which had been had by the supporters and opponents of the new procedure for about three years. Before going into details of the new procedure it seems useful to enumerate the reasons which led to this Act. The former German examining procedure was not the initial cause. Its characteristic feature according to which all patent applications had to be examined as to novelty, inventive step and industrial progress had proved its value during the past 90 years. The German patent resulting from this examination was ap-

preciated not only in Germany. Its cause was, on the contrary, the conditions prevailing at the German Patent Office which have grown from bad to worse during the past few years. They could finally be improved only by a change of the law, and this became necessary last but not least, in the interest of Industry."

Handler, Milton, "Through the Antitrust Looking Glass—Twenty-first Annual Antitrust Review," *California Law Review,* Vol. 57, No. 1 (January 1969), p. 182.

"The title of this, my twenty-first annual antitrust review, is derived from Justice Stewart's mordant comment in his dissent in *Albrecht v. Herald Company,* that, 'The Court today stands the Sherman Act on its head.' 'The books,' says Alice in her quaint description of the looking glass world, 'are something like our books, only the words go the wrong way.' With a statute upside down and with words running the wrong way, the commentator must perforce resort to mirrors in the presentation of his analysis."

Hogan, Charles M., "It Is Time to Look at Reissues Again," *Tulsa Law Jaurnal,* Vol. 5, No. 10 (October 1968), p. 223.

"Lanham Act Registration of a Container or Product Shape as a Trademark," *University of San Francisco Law Review,* Vol. 3 (April 1969), p. 327.

Livermore, Joseph M., "On Uses of a Competitor's Trademark," *The Trademark Reporter,* Vol. 59, No. 1 (January 1969), p. 30.

"This article has been directed at suggesting trademark interpretations, consistent with existing law, that would minimize the product-differentiation dangers created by present trademark usage. These dangers are that the advertising uses to which trademarks lend themselves will prevent consumers from discriminating on economic grounds between competing goods, will provide existing firms with a degree of insulation from normal competitive pressures, and will create a substantial barrier to the entry of new competition. If competitors are permitted to use the trademarks of others descriptively and nondenominatively these dangers can be reduced. In such uses the inherent pulling power of a trademark is used as a competitive tool against the mark itself. Thus, the phrase 'tastes just like PUEBLO' uses the value of the trademark as a means of competing in the beer market against PUEBLO."

March, Arthur A., "Trademark Computer Survey," *The Trademark Reporter,* Vol. 59, No. 1 (January 1969), p. 1.

"In undertaking an investiga-

tion of the benefits to be derived from the computerization of trademarks, information was obtained concerning the experiences and desires of the members of The United States Trademark Association in connection with computer programs relating to trademark records."

Merin, Mark E., "Pre-Litigation Settlements of Patent Infringement Controversies," *Journal of the Patent Office Society,* Vol. 51, No. 3 (March 1969), p. 152.

"This paper will consider the nature of the agreement which the alleged infringer makes with the patentee; whether it is a contract on which either of the parties may sue in the event of a breach; the legal grounds as well as the public policies which augur for or against allowing it to be sued upon; the possible defenses which might be raised if it is sued upon; the likely damages which could be awarded; the availability of specific performance of the contract; and the court in which the action should proceed."

Nimmer, Melville B., "Copyright and Quasi-Copyright Protection for Characters, Titles and Phonograph Records," *The Trademark Reporter,* Vol. 59, No. 2 (February 1969), p. 63.

"My subject is the legal protection afforded to characters, titles and phonograph records. As will be seen, protection for such works under the law of copyright is quite limited. Such protection as is available may more often be found under what might be called quasi-copyright. We all know that when lawyers are uncertain as to how to describe a given concept, they find it comforting to insert the prefix 'quasi.' From what follows it will be seen that there is a great deal of uncertainty as to the nature of the legal protection presently available for characters, titles and phonograph records."

Nimmer, R. T., "Law of Parody-Infringement," *Valparaiso University Law Review,* Vol. 3 (Fall 1968), p. 34.

O'Brien, Robert D., "Computers in the Field of Trademarks," *The Trademark Reporter,* Vol. 59, No. 1 (January 1969), p. 12.

"Before reviewing the future role of the computer in the trademark field, it would be well to review some fundamental characteristics of the computer and its capabilities. After this, a brief look will be taken at the theoretical role of the computer today and finally a look at the potential of the computer in the far future."

Olin, Spencer C., "The Administration of a Character Licensing Program," *The Trademark Reporter,* Vol. 59, No. 2 (February 1969), p. 76.

"I propose to treat the topic assigned to me non-legalistically and to talk about some practical aspects of character licensing programs in the context of the one with which I am most familiar."

Package Licensing and Post-Expiration Royalties: the Risk of Misuse," *Boston College Industrial & Commercial Law Review,* Vol. 10 (Fall 1968), p. 143.

"Permissible Cooperation in European Economic Community," *Antitrust Bulletin,* Vol. 13 (Winter 1968), p. 1511.

"Preemption of State Unfair Competition Protection under the Proposed Copyright Revision," *University of Colorado Law Review,* Vol. 41 (February 1969), p. 115.

"Quo Vadis—International Patent Classification," *Journal of the Patent Office Society,* Vol. 51, Nos. 1-2 (January and February 1969), p. 123.

"It is with a full awareness of this critical time factor that the Society of Patent Classifiers is proposing the establishment of a truly international study group of documentation experts to survey the situation. Whether organized within the ICIREPAT framework or outside it, such study group ought to objectively appraise all the existing systems —including the Int. Cl. This appraisal must be weighed against the basic requirements of a truly universal *search* system, without undue emphasis on cost. Certainly a joint venture on a wide international basis ought to be able to marshal the necessary resources without crippling compromise in the principles or criteria essential to a common search system."

"Role of the Register of Copyrights in the Registration Process: a Critical Appraisal of Certain Exclusionary Regulations," *Bulletin of the Copyright Society of the U.S.A.,* Vol. 16 (December 1968), p. 65.

Rowland, Walter S., "The Treatment of Unfair Competitive Practices in the West German Republic," *The Trademark Reporter,* Vol. 58, No. 12 (December 1968), p. 853.

"In Germany, the laws of unfair competition were enacted first, limiting the permissible types of competitive acts. German antitrust laws followed some 70 years later. In this country, first came the Sherman Act and its emphasis on the promotion of competition. The result is that the American approach to the regulation of anti-competitive activities has been more sophisticated than the German, while the German approach to the regulation of undesirable competitive acts has been more sophisti-

cated than the American. Insofar as it is possible to predict the future of the American law of unfair competition, it appears that the Supreme Court's decisions in *Sears* and *Compco* have added important impetus to a refinement of the federal and state laws of unfair competition. It is doubtful at the present juncture in history that this refinement will approach or emulate the German example."

Sacks, H. D., "Crisis in International Copyright—the Protocol regarding Developing Countries," *Journal of Business Law* (January 1969), p. 26.

Sarraute, R., "Current Theory on the Moral Right of Authors and Artists under French Law"; Treece, J. M., "American Law Analogues of the Author's 'Moral Right,'" *American Journal of Comparative Law,* Vol. 16 (1968), p. 465.

Shaw, Laurence, "Proposals for Amendment of United Kingdom Trade Mark Law," *Journal of the Patent Office Society,* Vol. 51, Nos. 1-2 (January and February 1969), p. 13.

"Those who use trade marks require legislation which is commensurate with their practical needs. British traders have suffered particularly in this respect because the present United Kingdom Trade Marks Act of 1938 is, in many of its provisions, out-of-date. This is hardly surprising when one considers the changes of the last twenty-seven years: in 1938 few homes had television, refrigerators and washing machines were rare and super-markets were unknown. This paper discusses some of the ways in which the provisions of the 1938 Act, herein called 'the present Act,' fails to meet modern requirements and makes suggestions which may assist future legislators."

Siegel, Neil B., "Production of Documents in Patent Office Proceedings," *Journal of the Patent Office Society,* Vol. 51, No. 4 (April 1969), p. 201.

"This article is concerned with the availability of an order for production of documents within the possession of parties to an interference. Because of the unique statutory grant of ancillary jurisdiction to the District Courts for purposes of discovery, problems may arise in: (a) jurisdiction, (b) timing of the motion, (c) good cause for production of the documents, (d) types of materials sought and limitations on discovery, and (e) penalties for failure to produce under a court order. Hence, it is the purpose of this note to explore some of the relevant issues that arise pursuant to Rule 34 during an interference."

Suljak, N. D., "Right to Translate and International Copyright Conventions," *Law Library Journal,* Vol. 62 (February 1969), p. 47.

Swann, D., "Concentration and Competition in the European Economic Community," *Antitrust Bulletin,* Vol. 13 (Winter 1968), p. 1473.

"Trade Secret Protection in Ohio and the Proposed Federal Statute," *Ohio State Law Journal,* Vol. 30 (Winter 1969), p. 157.

Welch, J. Edward, "Patent Infringement in Government Procurement: GAO's Role," *Journal of the Patent Office Society,* Vol. 51, No. 3 (March 1969), p. 177.

"This article has a twofold purpose. First, to explain why, in the author's opinion, the General Accounting Office (GAO) feels that the Government should be and is free under existing law to utilize a patented invention under a Government contract without a license from the owner to whom the Government has granted the patent. Second, to show that a patent owner who believes his patent has been used in the performance of a Government contract cannot (successfully) seek relief before the GAO or the administrative contracting agencies who have not been specifically authorized to grant such relief. Also, related matters involving patent indemnification, authorization and consent, and proposed legislation, as viewed from the standpoint of Comptroller General decisions, will be discussed."

Witt, J. W., "CATV and Local Regulation," *California Western Law Review,* Vol. 5 (Fall 1968), p. 30.

## Institute Award For Distinguished Government Service Announced

The Institute is pleased to announce that it will present annually a Founders Day Award for Distinguished Government Service to honor an individual who has made outstanding contributions in the industrial-intellectual property field while in government service. The Award will be presented annually at the Founders Day reception on February 11th. This reception is held on the anniversary of the day on which the Board of Trustees of The George Washington University placed the Institute in operation in 1954.

Nominations for the Award will be made by the Founders, the Donor Members, and the Patrons of the Institute. The full membership of the Institute will then select the recipient from among these nominees.

The Award will afford an opportunity to recognize in a university forum the dedicated public servant who has made highly meritorious contributions. In this way, the country will become better acquainted with the people and the accomplishments of the industrial-intellectual property sectors of government.

## Institute Holds Clinic On Computer Software

A group of experts representing industry, education and government were invited to participate in a one-day Clinic to discuss problems involved in the legal protection for computer software. This Clinic is part of a series conducted by the Institute. They are intended to surface generally inaccessible types of information based on the experience of a small, select, multidisciplinary group of specialists.

The objectives of the Computer Software Clinic were (1) to explore the key issues in the current software protection controversy; (2) to evaluate the several proposals which have been advanced as alternatives for patents or copyrights; and (3) to develop new approaches which might be considered by the Patent Office, the Congress, the legal profession, and the various segments of the computer industry. The underlying purpose of the Clinic was to define further productive studies in this area. A research report stemming from the Computer Software Clinic will be published in a subsequent issue of *IDEA*.

## Thirteenth Annual Public Conference Published; Fourteenth Scheduled

The Fourteenth Annual Public Conference of The PTC Research Institute will be held on June 4th and 5th, 1970, at the Shoreham Hotel, Washington, D.C.

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The complete proceedings of the Thirteenth Annual Public Conference held last June is published as Volume 13, Conference Number of *IDEA*. The theme of the Thirteenth Annual Conference was "Technical Knowledge: Its Protection, Use and Flow."

Also included are two luncheon addresses which aroused great interest: "Patent Licenses and Antitrust Considerations," by Richard W. McLaren, Assistant Attorney General, Antitrust Division, U.S. Department of Justice; and "Communications 1969: Crisis or Ferment?" by Rosel H. Hyde, Chairman, Federal Communications Commission.

## Hartman Wins Student Award

Martin P. Hartman, a graduate student in The National Law Center of The George Washington University, won the 1969 Patent Office Society Student Award for his paper "Foreign Patenting Cost Study."

The award program is open to all the law schools in the District of Columbia including American, Catholic, Georgetown, George Washington and Howard Universities. Georgetown, George Washington, and Howard Universities were represented this year.

A citation from the Institute and an honorarium contributed by the Society will be presented to Mr. Hartman at the annual Patent Office Society banquet to be held later this year. On this occasion citations will also be given to Joseph E. Casson for his paper representing Georgetown University and to Burton D. Williams for Howard University. Their papers entitled "Fair Use: The Advisability of Statutory Enactment" and "The Protectibility of Spontaneous Oral Conversations via Common Law Copyright," respectively, along with Mr. Hartman's paper, are published herein under the "Student Papers" section.

## New Advisory Council Members Appointed

The Institute wishes to announce that two additional members, Cyrus V. Anderson, Associate General Counsel of PPG Industries, Pittsburgh, and Malcolm R. Wilkey, General Counsel of Kennecott Copper Corporation, New York, have been appointed to the Advisory

Council. Carl E. Barnes of Barnes Research Associates, Stamford, Connecticut, Georges Doriot of American Research & Development Corporation, Boston, and Earl P. Stevenson of Arthur D. Little, Inc., Cambridge, Massachusetts, have been reappointed for another term.

## Olin Named 1968 Kettering Award Recipient

John M. Olin, Honorary Chairman of the Board of the Olin Mathieson Chemical Corporation, received the Charles F. Kettering Award at a dinner given in his honor during the Thirteenth Annual Public Conference of The PTC Research Institute on June 5th, 1969 at the Shoreham Hotel in Washington, D.C.

The Award is presented annually by the Institute. Previous winners were Stephen P. Ladas, Senior Partner in the firm of Langner, Parry, Card and Langner of New York, for 1967; Lawrence R. Hafstad, a physicist and Vice-President in charge of the General Motors Research Laboratories, 1966; General David Sarnoff, Chairman of the Board of the Radio Corporation of America, 1965; and Dr. Edwin H. Land, inventor of modern light polarizers and of the Polaroid Land camera and process for instant pictures, for 1964.

The Award was made to Mr. Olin as an engineer, inventor, business executive, educator and public servant. As honorary chairman of the board of Olin Mathieson, he continues to serve actively as a director and member of the principal committees of the board. He is a director of the World Wildlife Fund, an honorary trustee of the American Museum of Natural History, and a trustee emeritus of Cornell and Johns Hopkins Universities.

## Arthur M. Smith Collection Established

In view of Judge Smith's great interest in industrial property literature, the Arthur M. Smith Commemorative Fund is being used for the development of the Arthur M. Smith Commemorative Book Collection. After considering the various ways to use the funds available to maximum effect, the Institute deemed a collection of current books relevant to research on patents and trademarks most appropriate as a lasting memorial to Judge Smith.

The Arthur M. Smith Commemorative Book Collection will be housed in The PTC Research Institute's library at the Institute's headquarters on The George Washington University campus. This specialized library, devoted to the fields of education and research in which the Institute is engaged, should eventually become an im-

portant storehouse of published and unpublished literature for patent specialists, teachers of law, research workers in the physical and social sciences, professional people, and others. It is intended that the library will acquire collections in the Institute's particular fields of interest to supplement the rich library resources in Washington and add to the unusual opportunity for specialized research in the nation's capital.

At the invitation of Tom Arnold, as Chairman of the National Council of Patent Law Associations, patent law associations and their memberships are participating financially in the Arthur M. Smith Commemorative Fund. Contributions to the Fund should be sent to The PTC Research Institute of The George Washington University, Washington, D.C. 20006. Appropriate announcement will be made of the contributors thereto in the Institute's several publications.

## Nominations For 1969 Inventor Of The Year Award Invited

Nominations for the 1969 Inventor of the Year Award are invited by The PTC Research Institute. Closing date for nominations is November 15, 1969. Members of the Research Institute and all other interested persons are asked to submit the names of candidates for consideration by the Awards Board. Submissions should include information to clearly identify the candidate and contain sufficient evidence of his *character* and *contributions* to enable the Board to make an evaluation.

The Inventor of the Year Award honors a journeyman or professional inventor who has made a significant patented invention or inventions even though he may not have had wide public notice. Presented annually, the Award provides the opportunity for recognition of the accomplishments of creative people. Chester F. Carlson was named Inventor of the Year for 1964, Samuel Ruben for 1965, Gordon K. Teal for 1966, Robert Adler for 1967, and Jay W. Forrester for 1968.

## New Book On Institute Studies Published

A new publication of selected major reports of The PTC Research Institute, with extensions, entitled *Nurturing New Ideas: Legal Rights and Economic Roles,* is scheduled in book form for November, 1969. This volume, published by The Bureau of National Affairs, is the outgrowth of references in the literature and requests that the Institute has received from specialists and from the larger audience interested in invention, innovation and industrial property.

The reports and papers included in this book explore in depth the many aspects of industrial property, including invention, patents, trademarks, technical know-how and trade secrets, and the relationship thereto of tax and antitrust laws and of trade practice. The material making up the book includes information of great interest to those engaged in matters relating to industrial property and to its protection and utilization.

This book will make the Institute's research that has appeared in *IDEA* more generally available to students, researchers and professional people with an interest in invention, innovation, and industrial property and to the larger public.

The papers contained in the volume fall into five natural areas of interest, and a chapter is devoted to each:

*Individual:* from the standpoint of creativity, incentives and the like;

*Organization:* from the standpoint of economic growth, research and development activity, intercompany relations, and executive decision-making;

*Government Policy:* from the standpoint of administrative regulations and procedures, terms of contracts with private firms, judicial actions, antitrust, and taxation;

*Legislative Proposals:* from the standpoint of expert and lay opinion or knowledge;

*International:* from the standpoint of foreign transactions, treaties, and arrangements.

# Computer Software Protection: Report of an Institute Clinic

HERBERT R. KOLLER*

## INTRODUCTION

IN VIEW OF THE CURRENT WIDESPREAD INTEREST in the problem of legal protection for computer software, and as a part of its continuing research program, The PTC Research Institute conducted a one-day Clinic on software protection in June of this year. Specifically, this Clinic represented one part of a four-part research project on legal protection for software inventions. Another part evaluates the attitudes, interests, and suggestions for problem-solution which reside in the professional societies and trade associations in the computer manufacturing and software development industries. A third part consists of a survey of laws and practices regarding legal protection for software which are either in use or being developed in the national agencies dealing with intellectual and industrial property in various foreign countries. The means by which these agencies plan to cope with the documentation and examination problems which will arise will also be studied. A

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fourth part is an independent analysis of the results of the software protection study undertaken in October 1968 by the U.S. Patent Office, dependent upon the availability of such reports.

The participants were technical experts on diverse aspects of the software protection problem. They represented the Patent Office, the Copyright Office, a major hardware manufacturing company, an independent software company, a software trade association, industrial, academic and government organizations which are heavy users of computers, and staff members of the Institute. A list of the participants in attendance and the agenda which was used to guide and structure the discussions of this Clinic are appended.

The group was sufficiently varied to include a former Assistant Commissioner of Patents, a former staff member of a Congressional subcommittee concerned with patent and copyright matters, several persons who have long been involved with research on computer applications and the operation of computer systems, registered patent attorneys, and active participants in professional societies in the legal and computer fields.

To encourage maximum freedom of discussion and to stimulate innovative contributions to the Clinic, the participants were invited to attend in their individual capacities, rather than as representatives of the organizations by which they are employed. It was made clear to them that any positions which they stated and suggestions which they offered would be treated as their personal, professional views rather than be interpreted as representing official policy of their organizations. It was also agreed that any subsequent published summary of the Clinic discussions would not identify the specific individuals who made particular statements.

## Context of the Clinic

The issues and arguments which have been raised relative to software protection and a number of relevant events which took place through the latter part of 1968 have already been well documented in the literature.[1] Among the significant developments up to that time were the Report of the President's Commission on the Patent System; the Guidelines to the examination of applications for patents on software inventions issued by the Patent Office in 1966 and 1968; several patent reform and copyright revision bills introduced into the

[1] See Koller and Moshman, "Patent Protection for Computer Software: Implications for the Industry," *IDEA*, Vol. 12, No. 4 (Winter 1968-1969), p. 1109, and the references cited therein.

90th Congress; the first decision of the CCPA in the *Prater and Wei* case (159 *USPQ* 583 (1968)); the study of the broad problem of legal protection for software inventions undertaken by the Patent Office; the development of at least preliminary positions on software patents by groups drafting the Patent Cooperation Treaty and the EEC patent system proposals; increased interest in the problem by a number of national patent offices; and a mounting interest in Congress and several of the Executive agencies in the operating practices of the so-called "conglomerates" or multimarket industries.

Related events have subsequently continued to unfold so that more recently we have seen new legislative proposals introduced into the 91st Congress aimed at changing the existing patent and copyright laws; several suits filed against IBM alleging, among other things, practices which violate the antitrust laws; announcements by IBM of new pricing policies (widely referred to as "unbundling") for hardware, software, maintenance and training which were followed by policy statements on these matters by some of the other computer manufacturers; and, subsequent to the Clinic reported here, a second decision by the CCPA in the *Prater and Wei* case (866 O.G. 1034).

It was in the light of all these events, with the overall problem still unresolved of how best to protect the valuable property which computer software represents, that the Clinic was convened. There were several objectives:

(1) To explore the key issues in the software protection controversy;
(2) To evaluate the alternative proposals for legal protection which have been advanced;
(3) To develop, if possible, new approaches which could be considered by the Patent Office, the Congress, the legal profession, and the various segments of the computer industry;
(4) To identify gaps in our current knowledge, and to identify productive areas which the Institute may study in more detail as part of its program of research on the industrial and intellectual property systems.

The following sections summarize the problems covered in the Clinic discussions.

## Economic and Social Goals

Many basic assumptions which are implicit in the structure of our current economic, legal, and social institutions are undergoing inten-

sive re-examination in our rapidly changing society. A considerable impetus to such activity has stemmed from the advances in science and technology and the resulting affluence which has come upon the scene with increasing rapidity, especially since World War II. Innovations in the transportation, communications, electronics, medical and other fields have caused a much increased concentration of the population in urban areas, new approaches to feeding the peoples of the world, radical changes in the age distribution of the population, increased internationalization of big industry and many other changes.

The computer industry has emerged on this scene on a large scale and has rapidly had an effect on many human activities in ways which may not yet be easily perceived. The long-range effects of computers on the job mix in the overall economy, on the preservation of individual freedom, on the methods used to provide education, on business and government, on the exploration of outer space, and on crime control, highway safety and the eradication of poverty, to cite a few examples, cannot yet be predicted with any degree of certainty.

The computer industry has had a very rapid growth in terms of both economic and technological development in the less than 20 years since the first stored-program, general-purpose computers came to the marketplace. Most of the computers in use today are described as "third generation" machines, and the fourth generation machines are expected to emerge within the next few years. Each generation has reflected major technological advances over the previous generation.

As innovations in the computer art have come forward, their developers have attempted to secure protection for their contributions through the established legal mechanisms. It now appears that, at least in some respects, the existing legal system may be inappropriate or inadequate. As a minimum, the legal system must prove capable of accommodating the new technologies; but the legislators and the courts must be vigilant in guarding against the law developing in such directions as to have adverse effects on the technological developments themselves and the economic benefits which new technology can bring. The courts have always compared previous cases to the one before them in order to discover similarities and differences, and the law is thus in a constant state of evolution based on analogy with the past. Precedents and change must be constantly analyzed and made compatible. Only in this way can the fabric of the law remain relatively constant while yet being sufficiently elastic to provide for new situations, and only in this way can persons make reasonable assessments of the legal implications of the new factual situations confronting them. Continuity and change,

each in proper proportion, must both be provided for to ensure stability in the system.

Perhaps the philosophy which underlies current law must be reformulated to accommodate changing social goals and values and to take into account problems which have been raised for the first time or with stronger force than previously as the result of introducing new technology. Among the assumptions implicit in previous discussion of the software protection problem which have remained largely unquestioned are these:

(1) That valuable innovative ideas deserve protection;
(2) That in our society, small business ought to be given encouragement and the means to prosper;
(3) That society should demand the maintenance of competition;
(4) That open and public disclosure of new inventions attracts investment capital, resulting in new or increased employment: these, too, of course, are assumed to be beneficial;
(5) That applying the intellectual property laws to software inventions is socially desirable;
(6) That there is widespread dissatisfaction with the computer industry by users of computers and software;
(7) That software inventions are so different from other new types of invention as to require new forms of protection;
(8) That our present legal system, which favors trade secrecy or the free exchange of computer programs and permits copyright registration but discourages software patents,[2] is sufficient to encourage advances in the art, to foster economic development, and to treat fairly the conflicting interests of both big business (manufacturers) and small business (independent software companies).

It is obvious that some of these assumptions are in conflict, and it would be appropriate to develop enough factual information, including more economic data, to prove or disprove each of these assumptions and perhaps to develop new ones to serve as the basis of change in the legal structure. In a later section of this paper a number of problems for further study are identified.

[2] The comment above, that the current system discourages software patents, purposely avoids any interpretation of the second Prater and Wei decision, which, in rejecting method claims while allowing a single claim to apparatus, includes some suggestions of how the language of the rejected claims might be changed in such a way as to make them patentable. Since the method claims were not allowed by the court in that decision, no attempt is made here to indicate any changes in patent practice which may evolve as a result of this decision.

While the Clinic group discussed some of these more or less fundamental questions, it was apparent that the answers would not be easy to come by. The question was asked, for example, as to what is the nature of the economic squeeze which independent software companies claim they are in? A corollary question is: Will the separate pricing of hardware, software, maintenance and training really be the solution, or are there other problems which are more basic? On another side of the problem, what are the most practical legal mechanisms which we can develop to foster software development? The participants agreed that the questions of economics and technology must be answered before the questions of best legal mechanism can be properly addressed. But the basic principles of our legal system have proven useful for so long that they should not be radically disturbed, and we must harmonize the pressing demands of the technology explosion with those principles. The end result should be an absence of artificial barriers to competition, keeping in mind that the antitrust laws were conceived also to protect consumer interests.

Some software houses claim that their growth has been inhibited by unfair competition from the large computer manufacturers, in spite of the growth of the industry from zero to $3 billion a year in less than 20 years. While this growth rate appears large in an absolute way, what growth rate might have occurred under other circumstances, or what growth rate could be hoped for or would be most desirable?

## Interaction Between the Law and the Technology

An example was cited of a large computer system which was contracted for together with software. When delivered, the machine was able to function, but the promised software was not yet ready, and under the terms of the contract the manufacturer was not to be paid until all of the items contracted for were delivered. The customer was able to use the equipment when delivered only because there was on hand software developed by other sources. How did this situation arise and how much of it was the result of the legal mechanisms involved? If the inability to use the equipment while awaiting the contracted-for software is the direct outcome of the existing law, this should be recognized since it may shed light on the real legal problems which must be solved.

It is possible that the example cited presents a problem which is not primarily a legal one, but rather the relatively recent problem of software development as a major (and frequently uncontrollable, or at

least unpredictable) thing to be managed. The software art is not yet so well developed that the costs of developing a new system can always be predicted with even that degree of confidence with which a construction firm submits bids on competitive building construction procurement.

In another kind of interaction between the law and the technology, it was pointed out that there is, relatively, a continuing shortage of skilled programmers. Any legal protection mechanism which enhances the public knowledge of the existence of particular programs would be beneficial insofar as it would prevent the necessity for programmers duplicating work which has already been accomplished—what is often called "reinventing the wheel."

## The Nature of Software Inventions

The Clinic considered the nature of software inventions in terms of whether they differ in kind from inventions in new fields of endeavor which have arisen in the past. The rapidity with which computers have been applied since their introduction, and the depth of their penetration into government, industry, commerce, education, science, military use and other activities, have few parallels in history. One which easily comes to mind is the transistor. But the magnitude of penetration in terms of both breadth and depth may be so great as to represent a qualitative difference from previous new types of inventions.

Everyone seems to agree that software is a valuable kind of property and that it is the kind of commodity which people make, use, sell, copy and otherwise treat as a thing of value. But does software, by which is meant computer programs, signify a process, a method of operating a machine, a machine per se or a subcombination of a machine, or any other classical category of invention defined in the patent statutes? Does it represent a product of blood, sweat and tears, rather than of ingenuity or the flash of genius when created by a man skilled in the art who is confronted by the same problem and has available a computer, its basic instruction set and a wide gamut of programming languages? As in much of engineering, new solutions to new problems are developed every day with considerable ingenuity, and although they frequently represent advances, most of them are probably not patentable or are not valuable enough to warrant seeking patent protection.

It was noted during the Clinic discussions that if a software

invention rises to the dignity of (patentable) invention, but has the defect that it cannot legitimately be cast into the mold of any of the existing statutory classes, there may be a need to establish other statutory classes. Confronted with a claim to a new class of invention, the patent examiner must determine whether it clearly falls within one of the statutory classes, perhaps by reasonable expansion of the scope of that class, whether it falls outside the limits of any of these classes, or is unpatentable because it falls under one of the rules which have evolved which define unpatentable subject matter. In the latter category are, for example, obscene inventions, mental operations, inventions involving negative limitations and principles of nature.

It was also observed that there is a considerable degree of equivalence between hardware and software. Computer professionals recognize that it is often a matter of economics and convenience as to whether a given operation should be provided by programming or by prewired hardware. This equivalence suggests that a valid patent on computer hardware must not be anticipated by prior art describing an equivalent invention embodied in software, and vice versa.

To confuse this picture further, it is possible to draft a claim reciting "means for" accomplishing a certain result in which the claim is broad enough to read not only on software and hardware, but also on those hard-to-categorize constructs which have been labeled "firmware." A similar problem exists in machines having "read-only memories" for micro-instructions. An example of a firmware component might be a small, easily replaceable part which is prepunched or wired in such a way that when activated, it would interconnect other components of the machine in a manner as to cause a particular series of computer operations to take place (e.g., computing the square root of any given number). A read-only memory is a digital storage device containing data which can be read or detected by the machine on command, but the contents of which cannot be altered in the normal course of operating the computer. If an error occurs in a read-only memory or in a firmware component, is that error attributable to the engineer or to the programmer?

## Competitive Aspects of Software Protection

In the early days of computers, there was no software industry as we know it today. In order to induce would-be users to acquire their machines, the manufacturers were forced to supply customers with

training in the art of programming, and, increasingly, with programs which could be used when the equipment was installed. As the machines became more complex and more difficult to program, users were confronted with the so-called higher level programming languages, compilers, assembly programs, executive routines, operating systems and other tools which permitted the use of the machines without resorting to "machine-language" programming. Collectively, these are known as "systems" software. Every newly introduced machine required an enormous systems software backup, and the manufacturers developed this by using their own staffs and also by contracting it out to independent software companies.

The usual practice has been to create generalized software which would serve the needs of a number of customers and, therefore, would be more economical than tailoring the same software to each user's specific requirements. Of course, a certain amount of tailoring was often provided in individual cases. The program assistance given to users applied not only to systems support, but extended to the applications programs, the software which does end-result production for specific, concrete, well-defined tasks. The independent software companies gradually found themselves competing with the manufacturers in both the systems and applications areas. They argue that the practice of manufacturers in giving software to users free of extra charge puts them in an unfair competitive position because a user will not be willing to pay for somewhat more efficient (because of its being less generalized) software after he has already received equivalent software with the purchase or lease of the equipment.

There is some reason to believe that at least some of the major manufacturers would prefer to concentrate on the production and marketing of the hardware and not be in the software production business. Some of them do sell these two types of products separately, although the usual practice is to present the user with a single package price which includes hardware, software, maintenance and training.These prices, of necessity, reflect the amortization of software development over the past five to ten years. Independent software companies may find it interesting to speculate on whether the manufacturers will elect to concentrate on hardware after their existing software investments have been fully amortized. (As an aside, one may wonder what effect the recent IRS discussions on whether user software costs are to be treated as a capital investment may have on the computer hardware manufacturers.)

It should be noted that the development costs for software are

primarily directed at making the program "work" and perform the desired result the first time it is run. Once this is successfully accomplished, the cost of reproducing the program is nominal; it is analogous to making contact prints of a photographic negative which may have resulted from a costly and complex series of preliminary events.The question of whether copyright protection is sufficient, not only to protect the investment, but also to reward the contribution which the program represents, is probably too simplistic because it does not really get to such issues as what constitutes infringement, nor how infringement may be detected.

The software independents have urged that their competitive position would be enhanced if the manufacturers would be forced to price hardware and software separately, and that package pricing amounts to tie-in sales, which are recognized as illegal in other industries. They have also claimed that the "free" manufacturers' software tends to "set in concrete" how the machines themselves are to be built, and the result is a diminished range of choices among hardware alternatives for users.

In one of the suits recently filed against IBM, it is claimed that when the plaintiff software company announced that they were offering certain new program packages, IBM told the prospective customers that they would develop programs for the same use and would supply it at no cost to the users. This was said to deprive the software company of the opportunity to sell their products to these customers.

If broad enough patent protection were available, would the situation have been different? Copyright would probably have done little to protect the software company's market because the IBM-developed programs would not be copies even though they might perform the same overall function. It is well recognized that for any given program concept which solves a particular problem, a large number of specifically different programs can be created.

That "unbundling" has now started is a fact. What all of the consequences for users and independent software companies will be cannot yet be foreseen. It is possible that as the industry continues to mature, some companies will concentrate on making the best hardware, others on the best software. But it is also possible that some of the hardware manufacturers, who have enormous resources, in staff as well as dollars, may develop relatively autonomous operations in each of these areas, and their software operations may be larger than any of the independents'. A "software backlash," then, may be one result of unbundling, with a countervailing power emerging which may be

greater than the independents can meet. Such effect may be even greater if a strong software patent practice emerges.

The Clinic discussion also touched on reasons why the software firms want strong patent (or stronger copyright) protection in addition to relief from the unfair competitive position which they claim to be in. A suggestion was made that under the prevailing protection system, which depends almost wholly on trade secret and contract practices, it is difficult to attract investment capital. Perhaps investors would be more eager to make funds available for costly software development if there were a strong likelihood that a patent would result to protect their investment.

In attempting to devise the optimum, or at least the most practical, legal mechanisms for the protection of software, antitrust doctrines and similar considerations must be kept in mind. Interests of small business, the public, and big business must be fairly balanced. The temptation to overprotect any one of these sectors must be avoided and perhaps the solutions which evolve should reflect, not what the software independents say they want, nor what they say they need, but rather, in view of all of the circumstances, what they merit. Otherwise, there is a possibility that one segment of the industry would be subsidized at the expense of the other, perhaps with adverse, though not now predictable, effects on the future of the technology itself. In the larger view, we must ask what would be best to foster economic progress, to promote technological advance, to attract investment capital, to achieve the nation's social goals, and to encourage American industry in the world market? The last point mentioned takes cognizance of the fact that not all countries will solve the software protection problem in the same way, and not all of them provide the same inducements to progress and encouragement to industrial development as does the United States.

## Some Practical Aspects

The U. S. Patent Office has identified several practical problems which would make it difficult for them to process applications claiming software inventions. For example, the large number of applications which might be filed would itself cause an enormous increase in the workload. It has been estimated that some 10,000 programs are created every day. Admittedly, no patent protection would be sought for most of them, but if applications for 10 percent, 5 percent, or even 1 percent were filed, the increased workload would be huge. Other practical

difficulties are seen in the large volume of prior art which exists, much of which is in the public domain but not easy to gather and much of which is undated; in the difficulty of classifying and searching the prior art; and in developing appropriate standards of patentability.

In answer to some of these problems, it has been pointed out that the computer technology itself may offer some measure of solution to the classification and searching problems. The considerable research work of recent years on automatic indexing and on information storage and retrieval has not yet resulted in large-scale machine searching systems suitable for use by the Patent Office. However, this area of research continues, both in the U.S. Patent Office and in other patent offices, as well as in universities, industry, and elsewhere. In the long run, the examining patent offices will look increasingly to the use of computers for aid in performing novelty searches. We are not aware of any ongoing research in information storage and retrieval specifically directed to handling documents in the software art. However, a project which has been undertaken by two professional associations, one in the patent law field and one in the computer field, may represent a good beginning in this direction.

While there exist several computer program tape libraries and catalogs of program collections (e.g., NASA programs available to contractors), user exchange groups (e.g., SHARE), and published abstracts of new programs in some of the professional literature, the means for describing the contents of the programs and how to use them are not yet standardized. Nor is there agreement on how to classify programs in terms of their function, machine configuration requirements, or other important aspects. Recently, the American Patent Law Association and the Association for Computing Machinery have embarked on a joint effort to develop means for "ordering" computer programs, that is, approaches to classifying them. If successful, this may be a very useful first step toward providing means for searching the prior art of this field. To be fully useful for the Patent Office's purposes, some means will have to be developed to ensure that programs which become publicly available are appropriately dated to permit examiners to determine whether a claimed invention is in fact anticipated by the published program.

There are related efforts underway which may also bring computer technology to bear on the examination process. For example, the U. S. Patent Office is committed to computer-driven type setting and composition for the printing of patents. Since one of the byproducts of such a process is a machine-readable tape of the text,

eventually these tapes will afford a data base which will permit full-text searching by computer. This may require that applicants be forced to employ preferred or controlled terminology in describing their inventions, but the net benefits would probably be worth exchanging for this restraint. Consideration has also been given to requiring applicants to submit machine-readable copies of their applications or giving them some inducement for doing so, such as a reduction in filing fees.

The development of appropriate standards of patentability for software is a difficult problem. In other technologies, the courts have established rather high standards and most patents litigated on this issue have been declared unpatentable as being below the standard. If the Patent Office were to issue software patents without having access to the prior art, the presumption of validity which accrues to issued patents and the standard of invention would both tend to be diminished. It is probable, therefore, that because of these yet unsolved practical problems it may be premature to establish the patentability or unpatentability of software inventions.

Classification of software inventions also is of interest because it has implications for the field of search pursued by the examiner, and because the 1966 and 1968 Guidelines distinguish between different types of programs. The examiner must consider whether the program processes data to develop a numerical result or to control a physical or chemical process, and whether the program is a combination itself or a subcombination of a larger process or machine.

It has been stated that a program is more than a process of operating a machine. It determines not only what a machine does, but what it is, since it determines which components of the machine will be interconnected, and in what temporal sequence. If the program of a special-purpose computer is stored in a read-only memory, rather than being otherwise provided for in hard-wired machine elements, and if that program is changed, it is perhaps a philosophical rather than a practical question to inquire whether changing the program also changes the hardware. As developments take place in the field of self-organizing and adaptive machines, in which the machine itself creates programs in response to environmental factors, this question may grow in importance.

Classification of the invention also has consequences for the claim draftsman. If it becomes settled law that software is not patentable, where a software invention is made there may be a trend toward claiming an equivalent hardware embodiment. This practice may be

considered euphemistic, although it would be almost impossible to determine in what form the invention was first conceived.

While it is probably not generally true that a particular general-purpose machine is wholly dependent upon specific software for its operability, it does seem appropriate, at least in some instances, to claim a machine and program in combination. The total effect is the equivalent of a special-purpose computer.

Another practical aspect of examining software inventions can be illustrated by analogy with the slide rule. The device, as apparatus, can be examined, but methods of operating it are more difficult to examine because of the large number of different types of problems which can be solved on a slide rule. Closely related is the "extension of the mind" principle. A new mathematical transform is probably not patentable per se. But if this transform is programmed for a computer, does it become a patentable invention?

There are also some practical questions involving copyrighting of software. Since less than 200 programs have been registered in the several years since this practice first became available, we must conclude that this form of protection is felt to be less than fully adequate. IBM's recent announcement of their intent to copyright certain classes of programs may change this picture. Copyright registration affords protection against copying or against substantial copying, and is granted on the basis of originality, in contrast with a patent, which offers protection of the concept and is based on novelty. The ease of writing a specifically different program if the concept behind a given one is disclosed and the ease of making substantial changes in a disclosed program are weaknesses in copyright protection as compared with the protection given by a patent.

A copyright also confers the right to prevent translations and some kinds of adaptations, but in actual practice what this means for a copyrighted computer program has not been determined. Could a program written in a language appropriate for an IBM/360 be translated for use with a Univac 1108 or some other machine without violating a copyright? In some instances, only a trivial modification would be required. Some other kinds of modifications, such as correcting a program "bug," or changing a small subroutine in a large program in a manner which cuts the running time by half, might be considered to be improvements, analogous to improvement patents, rather than mere alterations. An improved program, in this sense, might be copyrightable by a person other than the one who wrote and copyrighted the original program.

## Alternatives to the Status Quo

It has already been noted that under the existing system trade secret protection is widely used for software, and copyrights are also employed, but to a much smaller extent; at the same time, in the main, granting some exceptions in the Patent Office, patents have not been available. Several alternatives for the present system have been suggested in the past, and these were considered by the Clinic participants together with some additional possibilities. No attempt will be made in what follows to distinguish between previously proposed approaches and those surfaced at the Clinic.

The participants agreed that perhaps not all software inventions should be considered as equally worthy of protection and that different remedies may be more fitting for some than for others. Three "levels" of programs, distinguished by their specificity of expression may warrant different legal protection. On the first level, a machine language set of instructions, if felt to be valuable exactly as set forth on a tape, on punched cards, or in a printout, might be adequately protected by copyright, or perhaps by a short-term patent such as is available for ornamental designs.

On a second level are the concepts embodied in the program listing of the first level, conceived in functional or machine-independent form. Flow charts which broadly identify a sequence of operations in terms of results to be obtained in each major step, and which are not dependent upon specific hardware or a specific machine's instruction repertoire, are what is contemplated here. Another way of describing this level is to state that a flow chart which describes an algorithm in such a way that a skilled programmer could translate it into a higher level language program, would be an example of what is contemplated for this second level. Here, patents of the usual kind might be most useful.

At a yet higher level are the overall concepts which ultimately find expression in each of the preceding level's forms. It is more difficult to define exactly what is contemplated here. However, one can envision situations in which each detailed section of a program represents a well-known computational technique, but in which the invention or contribution to advancing the art would reside in discovering that these techniques applied in some particular way would solve a previously insoluble problem. Trade secret protection would be apropos, or a form of patent described below, in relation to a substantial examination fee.

It is recognized that there are many shades of grey in this series of

levels, and no clear-cut guidelines are easily recognizable. For example, would a program listing in FORTRAN or ALGOL be at the first level or the second level? These languages are in widespread use and are among the common tools of programmers. However, the programs actually performed upon the data to be processed are not the FORTRAN or ALGOL programs as written by the programmer; instead they are the machine language versions created by the specific computer itself.

Five general approaches to software protection were discussed, together with one miscellaneous suggestion which might be useful as an adjunct to the enforcement of several of the approaches discussed.

*Maintain the Status Quo*

Here, the law would evolve on a case-by-case basis and patentability standards would gradually emerge as the courts were confronted by successive cases. Copyrights would be encouraged, especially for the first level described above. Since originality rather than novelty is important in copyright law, most of the practical difficulties of patent examination would be obviated. Litigation would also determine what constitutes infringement, and use of a copyrighted program by entering it into a computer and running the program might be distinguished from making copies of the program for sale to others. The former might be treated as fair use in some instances.

For the third level of program described above, it was suggested that if a program were sufficiently valuable to its inventor, a patent application could be prosecuted upon payment of a filing fee on the order of $25,000. A fee of this magnitude would permit the Patent Office to develop the prior art adequately and any resulting patent would carry a strong presumption of validity. Such a practice would certainly weed out the trivial from the significant contributions. Would it, however, discriminate against the "garret" inventor or the two-man software company which may not have resources to seek this kind of protection?

*Registration Systems*

Several varieties have been suggested, most of them resembling copyright registration, at least as far as processing before the cognizant government agency. The scope, novelty and validity of the claims

would be determined in *inter parte* proceedings after issuance of the registration document when the owner sought to enforce his rights against alleged infringers. This approach is on all fours with the patent systems of countries which do not examine for novelty. A variant suggestion, labeled "processright," would have a mixture of the attributes of patents and copyrights. Here, protection would be granted on publication of a claimed program, and would cover the process which the program performs. The protection would, therefore, not be limited to the verbatim content of the registered program. Copying the process would be a violation, but independently developing an identical program would not.

*Short-Term Patents*

For the less significant software inventions, and those whose useful life is anticipated as being considerably less than 17 years, patents might be issued for five or ten years, and the term might be at the option of the applicant, with the term selected being reflected in the filing and issue fees to be paid. The depth of novelty examination would be less than for other applications and the validity presumption would also be less. These patents might be analogous to those now available for ornamental designs, or they may be considered analogous to "gebrauchsmuster," or petty patents, in Germany.

*Partial Disclosure Patents*

Under this approach, the disclosure in the patent application would consist of two parts: First, a description of the conceptual design and object of the program, which would be published when the patent was issued; and second, sufficient detail and practical know-how about the program to ascertain its operability, which would be retained as secret within the Patent Office until after the patent had expired. While this approach merits serious consideration, it is strikingly at variance with the general concept of patents as an exchange of an exclusive grant for a full public disclosure of the invention. Whether the Patent Bar and the inventors would be satisfied with the postponement of public disclosure until the expiration date is questionable. However, this might be a suitable trade-off against the ease with which infringement could be averted by equivalent programming if too much detail were to be disclosed.

*Opposition Systems*

Patent applications are being opened for public inspection and for third party opposition in an increasing number of countries. One of the chief advantages of such a system for software inventions would be that it would make up for some of the difficulties which the Patent Office would have to face if confronted with examining software applications, at least in terms of the difficulties noted in collecting and searching the prior art. In an opposition system, third parties would find encouragement for calling the attention of the Patent Office to prior art which for one reason or another was not considered by them.

A useful alternative would be the already proposed Validity Court.[3] For short-term patents, validity could be challenged by an opposition proceeding during the first year following issue, and for long-term patents, five years would be provided for such a challenge. After these periods, validity would not be contestable on the ground of obviousness. This would both encourage the development of knowledge of the prior art and increase the presumption of validity.

*Enforcement of Alternatives*

The Clinic made no attempt to choose the most preferable of these alternatives because of time limitations and because of the large number of unanswered questions which were identified.

A useful accessory mechanism for policing infringement would be in the nature of a device built into every computer. Every registered, copyrighted or patented program would be assigned a unique identification number, and every computer and every individual or corporate computer user would also be uniquely identified (the latter by social security number or equivalent). Every time a program were run, the program, user, and machine identifications would be recorded and these records would be sent to a central software rights enforcement agency. Royalties would be collected and distributed on the basis of these records. Such a system is a long way from being available today and it has certain shortcomings. Among these, for example, are the questions of whether compulsory licensing must be incorporated in the law and whether program owners could refuse licenses. Further, because many users would feel that their privacy was being invaded if

[3] See L. James Harris, "A Dual Patent Program: To Increase Patent Reliability and Decrease Litigation Costs," *IDEA*, Vol. 13, No. 1 (Spring 1969), pp. 1-24 at p. 10; and paper on Cost of Enforcement of Industrial Property Rights in *IDEA*, Vol. 13, Conference Number 1969, pp. 51-59 at p. 54.

they cooperated in such a scheme, the net result may be either decreased use of computers or "bootlegged" computer operation.

## Problems for Further Study

During the Clinic, a number of areas were recognized in which there has been insufficient research to form a solid basis for making decisions on the most practical or the most desirable approach to software protection. This was particularly true for studies which would develop quantitive facts, and especially for economic data. The questions which follow were explicitly or implicitly raised during the Clinic discussions.

What would be the economic impact of some of the alternatives suggested above?

What are the probable effects of IBM's new pricing policies on the independent software companies' share of the software market? To what extent will the new IBM policies still offer a price "umbrella" for their hardware competitors? For their software competitors?

To what extent will IBM's share of the market change relative to hardware competitors who are not "unbundling"?

What differences would there be in economic impact if strong (or weak) legal protection mechanisms (analogous to patents or copyrights) are developed as a control and stimulus for the industry as compared with the use of antitrust, trade regulation and unfair competition laws?

Would a strong-concept protection system really be better for the software independents in competing with large manufacturers, or is regulation of package pricing better for them? In other words, is legal protection of the invention or regulation of trade practices really more advantageous?

What is the extent of use of programs for which copyright registration has already been obtained?

What would constitute fair-use copying of a copyrighted program? To what extent would this destroy the overall value of the copyright? Would compulsory licensing with royalty provisions be enforceable?

How can infringement be policed for copyrighted programs?

How do current publishing practices reflect constraints imposed by the copyright laws? What would be the economic effects of various proposed changes in the law?

Does copyright registration adequately protect the innovator's investment when equivalent programs can be fairly readily written if the

concept or principles of a program are revealed? Is there a recognizable difference in impact on the copyright owner between using a copyrighted program without permission and copying it (e. g., on tape) for sale to a third party?

How could infringement be policed in case of software patents?

What is the extent of utilization of patents on computing apparatus? Patents on computing processes?

How much does the user community pay in increased costs because of royalties on computers? On computing methods?

What licensing practices exist in this industry? What is the extent of "package" licensing?

What pricing policies do the manufacturers offer in terms of combinations of hardware, software, maintenance and training? How do these differ from pricing structures offered by other manufacturers who offer these items separately? How do they differ from pricing structures of independent companies involved in only one of these areas?

What would be the economic impact on users if the patent system excluded or included software inventions?

To what extent, if any, has the unavailability of patents for software impeded developments in some parts of the industry and encouraged it in others?

What would be the economic effect of the proposed Section 106 on the computer industry? To what extent would it benefit some segments and be detrimental to others?

## Conclusion

The participants in this Clinic questioned some of the basic assumptions of prior studies and writings, such as is there a possibility of (patentable) invention in software? Is there some unsatisfied need for protection of independent software producers? Is there a need for a new form of protection? Some antitrust and unfair competition aspects of the problem were discussed. Practical problems of the Patent Office were covered and the ACM-APLA program was considered in the light of its being a possible first step toward solving those problems. Difficulties with the existing forms of protective routes, namely trade secrets, patents and copyrights, were explored and several alternatives to the present system were examined. And, finally, a number of topics for further study and investigation were identified.

## APPENDIX

PARTICIPANTS IN THE COMPUTER SOFTWARE CLINIC
June 26, 1969

| | |
|---|---|
| George D. Cary | —The PTC Research Institute, Consultant; Deputy Register of Copyrights, Library of Congress |
| Robert M. De Baun | —Head, Data Processing, American Cyanamid Company |
| Prof. Michael A. Duggan | —The Whittemore School of Business and Economics, University of New Hampshire |
| Margaret R. Fox | —Chief, Office of Computer Information, National Bureau of Standards |
| Ezra Glaser | —Acting Director, Division of Statistical Information and Studies, U.S. Office of Education |
| John C. Green | —The PTC Research Institute, Project Leader, International Trade and Development Studies; Scientific Communications and Research Consultant, Washington, D. C. |
| Prof. L. James Harris | —The PTC Research Institute, Director; Professor of Law, The George Washington University |
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| Herbert R. Koller | —The PTC Research Institute, Project Research Associate on Computer Studies; Principal Information Scientist, Leasco Systems and Research Corporation |
| Eugene F. McLaughlin | —Manager, Computer Center, Univac Division of Sperry Rand Corporation |
| Malcolm A. Morrison | —SPE Primary Examiner, Art Unit 236, U.S. Patent Office |
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## COMPUTER SOFTWARE CLINIC

### AGENDA

I. Summary of the current situation
   A. On patents
      1. The President's Commission Report
      2. Patent Reform bills
      3. U. S. Patent Office Guidelines
      4. The U. S. Patent Office study
      5. *Prater* and *Wei* and other litigation
      6. Positions of other countries re software patents
      7. Issues pro and con patents
   B. On copyrights
      1. U. S. Copyright Office policy
      2. Copyright Revision bills, including the proposed Commission on New Technological Uses of Copyrighted Works

II. Proposals for legal protection of software inventions
   A. Patents and copyrights in the existing systems
   B. Registration systems, including those with hardware features to detect unauthorized use
   C. Mixed secret and public patents
   D. New statutory patent class

III. Problems and Issues
   A. Do we have a new class of invention which is different in kind from inventions of the past?
   B. What alternatives for the known proposals can we envision? Which would be preferable to encourage development of the new technology?
   C. If recently filed antitrust suits against IBM succeed, and either separate pricing (of hardware and software) or corporate dismemberment results, what impact on the need for software can we foresee? What impact on the form that protection should take?
   D. If the proposed Patent Cooperation Treaty or the proposed Common Market Patent materializes, what impact/influence on the problem might result?
   E. How can the computer technology itself be utilized in helping to solve the legal protection problem?

IV. Identification of specific areas for research
   A. Summarize the Institute's four-part study
   B. Define specific new studies

# Defined Field Licenses Revisited

HORACE B. COOKE*

## INTRODUCTION

IN A RATHER INFORMAL PAPER[1] presented to the Patent Law Association of Pittsburgh in 1957, and later published in the *Journal of the Patent Office Society,* the author commented on various practical problems in the area of "defined field" licenses. This paper was preceded by a somewhat more detailed paper[2] by W. E. Currie, and was followed in 1963 by an excellent paper[3] by Robert L. Harmon, dealing specifically with antitrust and misuse implications in this area.

More recently, the landmark decisions in *Brulotte* v. *Thys,*[4] *Lear* v.

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[1] Cooke, "Defined Field Licenses," *JPOS,* Vol. 39, No. 9 (September 1957), p. 635.

[2] Currie, "Survey of Fields in Patent Agreements," *JPOS,* Vol. 38, No. 4 (April 1956), p. 250.

[3] Harmon, "Antitrust and Miscellaneous Implications of the Defined Field License," *JPOS,* Vol. 45, No. 6 (1963), p. 463.

[4] Brulotte v. Thys Co., 143 *USPQ* 264 (1964).

*Adkins*,[5] and *Zenith Radio Corporation* v. *Hazeltine Research, Inc.*,[6] have been handed down by the Supreme Court. Also, the so-called Neal Report[7] contained various proposals affecting both multiple-patent licenses and other related patent licensing activities. Richard McLaren, in his address[8] given at the thirteenth Annual Public Conference of The PTC Research Institute in June 1969, has indicated the continuing concern of the Department of Justice with various aspects of "field-of-use" licenses.

Objective factual studies on the extent and effect of patent licensing limitations now being carried out by The PTC Research Institute, in which Professor Oppenheim is acting as Project Leader, should illuminate this field when completed and published in *IDEA*.

In the meantime, the comments of one who has for many years had extensive experience in the negotiation and operation of defined field licenses, in the oil industry and in the U.S. and Canadian wartime synthetic rubber patent programs, may be of interest.

It has therefore seemed appropriate to review defined field licensing again and, in the light of recent developments, to devote attention to such questions as may arise from the antitrust and misuse standpoints with respect to such agreements, and more particularly to those which have especial relationship to this type of agreement by virtue of its very nature. As will be evident, this paper is not intended as a full review of the relevant law, but reference will necessarily be made to a number of decisions which relate to problems arising particularly in connection with defined field licenses.

I shall begin by making certain distinctions between true defined field licenses, as I view them, and other types of "package" or "multiple-patent" licenses.

The frequent use of the term "package license" by critics and others interested in the legality or illegality of various provisions in licenses covering a plurality of patents, has obviously acquired certain semantic overtones. Broadly speaking, a package license may be considered to include any patent license under a plurality of patents, whether or not especially interrelated, and whether or not any limitation to a specified field is present with respect either to the licensed patents or the license granted. The licensed patents and, if present, the limited

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[5] Lear, Inc. v. Adkins, 162 *USPQ* 1 (1969).

[6] Zenith Radio Corporation v. Hazeltine Research Inc., "Patent, Trademark and Copyright Weekly Reports," Vol. 161, No. 7 (May 19, 1969), Supplement.

[7] Report of President Johnson's Task Force on Antitrust Policy, 1968.

[8] McLaren, "Patent Licenses and Antitrust Considerations," *IDEA*, Vol. 13, Conference Number 1969, p. 61.

field of use, may embrace many different things, even though in the same general art, as is true in such license agreements as those dealt with in *Zenith* and its predecessor, *Automatic Radio* v. *Hazeltine.*[9]

The questions of illegality (whether viewed as misuse or as possible antitrust law violation) which have been dealt with in these two decisions and in *Brulotte,* do not arise simply from the fact that a plurality of patents are licensed in a single agreement, or from the question of how clearly or intimately the licensed patents are related in subject matter or scope, but are primarily concerned with the question of whether royalty obligations under the agreement are limited to uses covered by the licensed patents or extend further in either scope or time. In short, a license agreement covering a plurality of patents, whether by specific enumeration or by reference to subject matter, is not illegal per se, but this obviously does not dispose of all questions of misuse or antitrust law violation which may arise.

The *Zenith* decision was of course forecast in the comment and recommendations of the Attorney General's National Committee to Study the Antitrust Laws, as well as the Court's earlier decisions in *Brulotte* and the earlier cases cited. I am inclined to agree with Justice Harlan's comment in *Zenith* that great difficulties will inevitably arise in the consideration of package licenses of the type presented in *Automatic Radio* and *Zenith* from the standpoint of proving actual *coercion* or its absence in many, if not most, cases, but I find no fault with *Zenith* on the facts presented there. However, to have held (as Justice Harlan suggested) that all agreements calling for royalties on total sales, patented or not, should be considered as per se misuse, even when no evidence of coercion is found, would have been quite another matter.

With full awareness that analogies are never perfect, I might remark that, if the only legal way to buy an automobile were to purchase the engine, the chassis, the transmission and the body separately, I would regard this as a very stupid, and even ridiculous situation, notwithstanding the fact that this is precisely what many car *aficionados* seem to enjoy doing today. I would certainly prefer to purchase my car as a unitary device, even though I might wish to include one or more of the various options now commonly offered.

All of which brings me to what is perhaps the main point about defined field license agreements when properly and most appropriately used. And that is simply that, almost by definition, they are most useful and appropriate, and best serve the interests of both licensor and

[9] Automatic Radio Co. v. Hazeltine Research Inc., 339 U.S. 827 (1950).

licensee, when they are written to cover a *unitary* process or method or a *unitary* device. This, it seems to me, is especially true where both the patents licensed and the field of use are defined in the same terms and as coextensively as possible, considering the inevitable differences between the matters covered by individual patents and even claims of individual patents.

That master of paradox, G. K. Chesterton, might have remarked, if he had been considering whether multiple-patent licenses were licentious, that perhaps the true defined field license, for unitary subject matter, is the only true "package" license. I would go a step farther into this semantic jungle and add that the more heterogeneous types of multiple-patent licenses could often well be called "conglomerate" licenses.

The particular type of "true" defined field license to which I wish to devote particular attention is one which contains an express definition of a particular art, whether that be a process, a method, or a type of device. The patents covered by the license—and this would also apply to patents affected by grantback provisions, if present—are those relating to the said art (to the extent that they do so relate) owned or licensable by the licensor and/or based on inventions made prior to a date certain. As was noted in my earlier paper, one important advantage of a properly drawn defined field license is that it avoids the problem of determining just what future patents of the licensor constitute "improvements."

The license grant is also limited to the practice of the defined art, with certain useful or necessary supplements. Thus, if the art is represented by a device, the license will normally include the right to sell such devices as well as to make and use them. In the case of a method, the license will normally include the right to operate devices useful in the practice of that method, to the extent so used. In the case of a process, the license grant will include apparatus useful in the process, to the extent so used, and the right to use and sell products produced by the licensed process. In a process license, the license will also often include the right to use catalysts in the process, but not necessarily (or usually) the right to sell such catalysts to others. In all these cases, the patent rights licensed will also include those covering such devices, apparatus or catalysts, as the case may be; in other words, the definitions of the licensed patent rights and the license grant itself will be identical in scope.

That the defined field must be carefully drawn is evident. An especially important question is whether the definition, particularly as

regards its limitation of the licensed patent rights, shall be broader or narrower in scope than the broadest claims of the patents intended to be licensed, and this will depend upon various circumstances, including the desires and intentions of the parties. It is undoubtedly true that problems may arise in either case, but perhaps especially so where the definition is broader than the scope of the patents licensed. In a process case, this may sometimes be unavoidable because the attention of the parties may be fixed on a particular type of process, and limitation of the patent rights to a scope precisely corresponding to the broadest claims of the licensed patents may well be undesirable.

Among other things, such a limitation might tend to limit the freedom of the licensee in selecting the particular manner in which he intends to operate the process and the design of his process units. However, if, as is true in the ideal case, royalties are payable only when the licensee's operation at any time falls within the scope of any one or more of the licensed patents not yet expired or invalidated, the broader definition will probably not cause difficulties and may also be advantageous in making available to the licensee the full and appropriate scope of the licensor's relevant know-how. On the other hand, it may be important in some cases, from the standpoints of both parties, to restrict the licensed field to a narrower scope than that of the licensor's patents. This would be true, for example, from the licensee's standpoint, if he felt that the licensor's patents were valid to cover the particular use he has in mind but not other uses with which he may (or may not) be concerned at the time, or where various other uses would economically support only a lower, or perhaps a higher, royalty.

In a process case, what the licensee usually wants is the right to operate a specified unitary process with all available and relevant know-how. In addition to freedom of action under the licensor's patents for the operation of a prospective unit or units, the licensee will also undoubtedly desire at least some indemnity protection against possible infringement of patents owned by others where such infringement is unavoidable. Of course, know-how and indemnity provisions are also usually needed by the licensee in licenses for methods or devices.

In a process license, the limitation on the licensed field of use will generally apply only to the nature of the licensee's contemplated manufacturing operations rather than to any restrictions on the final use or sale of the products produced, and questions of tying clauses and anticompetitive covenants will not arise. In most instances, the

licensee will want to be sure that later-issuing patents and later-developed know-how of the licensor are included, at least those issuing or developed within some reasonable period, to the extent that they relate to the defined process and its use.

Most process licensees (and perhaps others) will want the right to elect to satisfy their royalty obligations through payment of fully-paid or "commuted" royalties, either initially or later. Such terms are often provided for at the option of the licensee on the basis of lump-sum payments for a specified operating capacity, at a rate corresponding to, say, from five to seven times the running royalty rate (assuming that the patents involved have a longer remaining life), and with at least a substantial credit for running royalties paid prior to exercise of the option. Provisions for such paid-up or commuted royalties for a specified extent of use (often defined as "average daily capacity," measured on an annual basis) may well serve the mutual interests of the parties. The licensor gets his money more quickly. The licensee may benefit from tax treatment of such royalties as capital investment, as well as freedom from further royalty calculations and payments until over-runs occur or are imminent, and from greater flexibility in accounting. In fact, it is by no means unheard of to provide for paid-up royalty payments on annual capacity alone, without providing for running royalties on actual day-by-day production.

It is also sometimes provided in process licenses that, when the total royalties paid reach a stated figure, the licensee shall automatically acquire a fully paid license, unlimited as to capacity. Such provisions are of course unlikely in licenses covering the manufacture and sale of patented devices.

Indemnification for infringement of third-party patents, where unavoidable or otherwise either necessary or in the mutual interests of the parties, is usually limited to a fraction—say one-half—of the total royalties paid and may include a right in the licensor to participate in, or even control, actions by such third parties against the licensee. In process licenses, performance guarantees are usually provided—for whatever they are worth—by the contractor, who may or may not be the owner of, or a licensing agent for, the licensed patents.

Putting aside questions of tying clauses, anticompetitive covenants, resale price provisions and restrictions on sale or use of the products produced, there still remain a number of questions for consideration from the standpoint of misuse (or possible antitrust violation) in defined field license agreements, which are peculiarly relevant to such agreements.

## I

Does it constitute misuse to limit the defined field of use to a scope narrower than that covered by the licensed patents?

In many cases, the scope of the license granted (i.e., in the defined field) is narrower than that of one or more, or even all, of the patent rights licensed. Where this satisfies the needs of both parties, this would hardly appear to constitute misuse. So far as I am aware, there are no decisions holding that a license for a field narrower than the scope of the patent or patents licensed constitutes per se misuse. However, it has often been asserted that patent licenses should cover the entire field or fields of use of the licensed patents, or that uses other than those specifically contemplated (i.e., in the defined field) should be made available on specified terms, and it has even been urged by some that the same royalty should always apply to all such uses.

It may, of course, be conceded that circumstances could arise where an agreement providing such a limitation could be struck down as, for example, if there were evidence that the licensor had employed it as a part of a conspiracy to secure domination of that part of the field of the patents excluded from the license, or when coercion by the licensee is shown. In the absence of such extraneous circumstances, it would seem that any such criticisms as those mentioned should fall by their own weight. It should, however, be observed that Assistant Attorney General Richard W. McLaren,[8] while indicating that "there may be some justification for a patentee reserving for himself a well-defined field out of the various potential applications for his invention," has questioned whether justification can be shown for the type of restriction which divides fields of use "among licensees who would otherwise compete," and has intimated that the Antitrust Division will in due course challenge restrictions of this type. Here again, the existence of extraneous facts tending to show suppression of competition or undue monopolization would have to be taken into consideration.

The licensee will not usually be interested in a license for uses other than in the defined field of use. In fact, in most cases both parties will wish to avoid any obligation or commitment outside that field. As noted above, this is especially true—and properly so—where a reasonable royalty for operations in the defined field would not represent a fair or reasonable royalty for other operations. The licensee may, of course, believe that he might some day wish to be licensed for operations

outside the defined field, but the chances are that this would also involve patents of the licensor other than those included in his license for the field in which he is presently interested. He may, of course, ask for a promise from the licensor to license him for one or more such "external" operations, on request, at a reasonable royalty to be agreed upon and in terms at least as favorable as those extended to others, for whatever such a promise may be worth. That will no doubt be true if he feels he may be interested in another field in the future but that it would be premature to try to determine a sound and acceptable royalty for such operations without sufficient predictability of their utility and profitability. To take a typical example, where the defined field represents a process, it will often be necessary to include the right to use the licensor's patented catalysts in that process, and such catalysts may well be used in entirely different processes for which licenses are not at the time contemplated by either party.

It should also be borne in mind that, where the license runs to possible future patents as well as patents already in existence, the varying scope and utilities of such patents may not be predictable at the time the license agreement is executed.

"Know-how" usually constitutes a very important consideration flowing from the licensor to the licensee, especially in process licenses. Such know-how will nearly always embrace many technological considerations far beyond those necessarily disclosed in patents, including in process licenses, specific design and operating procedures applicable to a wide variety of charging stocks and end products. Where different processes for the same general type of operation are offered by two or more licensors, the final selection by the licensee is far more apt to be dictated by technological considerations (including the prospective licensee's evaluation of the know-how available from the licensor) than by whatever differences there may be in the royalties demanded, or even in the prospective licensee's evaluation of the different patent rights involved.

In licensing a process, a special situation may arise with respect to use of apparatus or catalysts in the licensed process. The licensee will undoubtedly want to be able to use these in the operation of the defined process under his license, if covered by patents of the licensor, and he may also wish to have the right to make them, or have them made for his use in the licensed process, without payment of another royalty. Situations often arise, however, where the licensor who is not in a position to manufacture such apparatus or such catalysts may find himself forced to grant exclusive rights for the manufacture and sale of the same to one or more other firms who are in a position to do

so—and probably more cheaply or more effectively—than the licensor (or the licensee) could do. If the overall royalty is based essentially on process patents, the fact that the licensed manufacturer of the apparatus will be required to pay a reasonable manufacturing royalty to the licensor will probably create no problem. But if, for example, a particular type of catalyst is vital to the process, then in such a case some adjustment may be necessary, as for example a full or partial waiver of royalty by the "manufacturer-licensee" on catalyst sold by it to the process licensee. In any event, if the relevant facts are known, it should not be difficult to reach a reasonable and mutually acceptable accommodation and to avoid undue double royalty payments.

Provided that the surrounding and relevant facts are put on the table without concealment, a full and fair agreement can be reached in these and similar situations, avoiding any probability of misuse or illegality so far as concerns limitation of the licensed field of use.

## II

> Should the prospective licensee have the right to select a single patent or group of patents for his license rather than the entire group offered to him, and on what terms?

Counsel would undoubtedly advise any client not to insist on licensing only the whole "package" of his relevant patents whether for use only within the defined field of use offered or otherwise, or to place such a high royalty on any license for an individual patent or limited group of patents as to amount to coercion on the prospective licensee to accept the whole package. All this would seem obvious enough.

However, at least where such a selective demand is made by a prospective licensee in a process case, it is likely that the licensee is not really trying to get a complete license for a process, including know-how, improvements, indemnity protection, et cetera. He probably has his own ideas of what he wants to do, and is concerned only with possible infringement of one or two of the licensor's patents if he uses them in his own way. In such cases, it would seem desirable and fair to both parties to offer, at a reasonable royalty, a "naked" license or immunity, under the particular patent or patents involved, either for all uses covered by the patents or for use in a defined field, but without any obligation to supply know-how or to license later improvement patents. It is obviously one thing for the licensor to supply know-how for the operation of a process under all of his relevant

patents and quite another to do so where only one or two of the licensor's pertinent patents are licensed. Moreover, such a "partial" license might well omit any indemnity provisions. These points deserve full consideration in setting the royalty at a figure which could not be fairly attacked as coercive in effect.

It is worth noting at this point that when the licensor is carrying out a program of licensing others under defined field licenses, a grant of a license under only one or two of the patents included within the defined patent rights normally licensed as a part of such program may create serious problems where, as is almost always true, most-favored-licensee provisions are included in the uniform program licenses. However, if such provisions are carefully drawn and the special or partial license granted outside the program is devoid of know-how provisions, improvement patents, and indemnity provisions, it should be possible to avoid such difficulties.

## III

> Should the licensee be required to continue paying the same running royalty after the principal patents included in the licensed patent rights expire and only less important patents remain?

It is more than likely that the licensor's patents relevant to the defined field of use will vary over a considerable range, not only in scope but in effective dates; they will normally have different—and sometimes very different—expiration dates. Quite frequently, there will be only one or two broad or important patents, and others of lesser scope and importance. The license may run to patents not yet in existence, especially where the "cut-off" date is later than the effective date of the license agreement.

In *Rocform* v. *Acitelli-Standard*,[10] decided in 1966, Rocform sued the defendant for infringement of an important patent covering a prefabricated form for pouring concrete basement walls. The defendant had come into possession of a set of these forms which he proceeded to use without a license. Rocform had offered to license defendant, but only under its standard license agreement covering the patent in suit and others of less importance. This license form did not provide for diminution of royalty after the expiration of the basic

[10] Rocform Corp. v. Acitelli-Standard Concrete Wall, Inc., 151 *USPQ* 304 (1966).

patent or for termination of the license at the will of the licensee. The defendant asserted that this constituted misuse. In reversing the trial court's decision in plaintiff's favor, the Sixth Circuit Court of Appeals held that the proffered license agreement (and its prior use by the plaintiff in licensing others) constituted, in effect, an effort to continue to collect royalties on an expired patent, and sustained the misuse defense.

In the more recent *Well Surveys* case,[11] decided by the Tenth Circuit Court of Appeals, the plaintiff sued defendant for infringement of two patents, the earlier of which was of considerably more importance than the later. The defendant based his defense of misuse on the fact that the plaintiff had granted a number of licenses under both patents, which were not terminable at the will of the licensee until the lapse of varying periods after the expiration of the important patent, and which provided for no diminution of the uniform royalty rate after the expiration of that patent. In support of this defense, defendant relied on the decision in the *Rocform* case. However, the Tenth Circuit Court noted that, in that decision, the statement of facts had stated that Rocform had offered to license only under its standard package agreement, while in the case at Bar the affidavits submitted by the licensor showed a willingness to license any or all patents under reasonable negotiated terms. The Tenth Circuit disagreed with the defendant's contention that the *Rocform* decision established per se misuse in such a license agreement and rejected the misuse defense. The court said: "The relative importance of patents has no significance if the licensee is given the choice to take a patent alone or in combination at reasonable terms. Freedom of choice is the controlling question." This would seem to be sound law.

It may also be observed that, even though no royalty payment for know-how alone is specified, the value of the relevant know-how of the licensor is undoubtedly, as noted above, a major factor in the agreement and is a large factor in determining the royalty terms. If the later-expiring patents are extremely limited or trivial, the licensee may simply avoid difficulty by not using them, or discontinuing their use if they have been used, although instances can arise in which such discontinuance could be burdensome if such items have been built into the design of the licensee's plant or plants. After all, if the licensee, without coercion, has agreed to pay for such use, there is at least some merit in concluding that he should be bound by his agreement.

Notwithstanding the *Well Surveys* decision, it may be well to

[11] Well Surveys, Inc. v. Perfo-Log, Inc., 158 *USPQ* 119 (1968).

provide that, upon the expiration or invalidation of the particular (and specifically identified) patent or patents of dominant or major importance, the licensee shall have the right to terminate the license, retaining, of course, any paid-up operating rights he may already have acquired. Even though such a provision were not considered necessary to avoid any question of misuse, it could be beneficial in avoiding future controversies between the parties. As a practical matter, it may often be wise for the licensor to give serious consideration to the possibility of renegotiation when the more important patent or patents have expired, and he may even be forced to do so by virtue of most-favored-licensee provisions if he intends to go on granting licenses under the remaining patents which may not support the full royalty justified by the original package. On the other hand, attempts at the time the original license agreement is entered into to provide specified lower royalty rates after expiration or invalidation of the principal patent or patents would in many cases be impracticable, if not unnecessary. It would be difficult to evaluate the equities of such a future situation before the situation actually arose, especially since one or more important improvement patents might issue to the licensor much later than the agreement date, and this could not be foreseen at the time the agreement is entered into.

Where the patent rights included by definition in the license agreement run to patents owned or acquired by the licensor prior to some date considerably later than the date of the agreement and may ultimately include a number of improvement patents based on inventions not yet made at the time the agreement is entered into, it may well be worthwhile to consider whether the licensee should be given the option of excluding, without prejudice, later improvement patents which he could not have anticipated at the time the agreement was entered into.

## IV

> Assuming that no patents have issued to the licensor at the time the agreement is entered into, but patent applications are pending, may the licensee be required to pay royalties on operations within the defined field prior to the issuance of any patent covering such operations?

That there are many instances in which "pre-patent" royalties have been provided for hardly needs to be said. Licensees are often

persuaded to accept such provisions by their desire to get into operation quickly and by their need to secure access to the licensor's know-how plus recognition of the fact that adequate patents will in due course issue to the licensor. Also, in some cases, the royalty terms offered at the time may be lower than the licensor intends to require in licenses issued after issuance of one or more patents.

It is difficult for the author to comprehend why any such arrangement should be regarded as misuse or "in contravention of federal patent policy," especially if, as would normally be done, the agreement provides that if no relevant patents have issued within a reasonable period after the date of the agreement, royalties will be suspended—or eliminated—until one or more relevant patents issue. Of course, I am assuming that there is a real consideration for the pre-patent royalties, such as know-how or favorable royalty terms, as mentioned above.

I am not aware of any decisions which have actually condemned such arrangements, but the recent decision of the Supreme Court in the *Lear* case, while not quite reaching the point, does at least raise a question as to what the Court will ultimately hold if and when this issue reaches the Court for decision. The minority opinion by Justice Black makes it evident that the so-called "liberal wing" of the Court regards all private arrangements for the disclosure of unpatented ideas or discoveries in return for royalty payments as running "counter to the plan of our patent laws." It is obviously impossible to predict what the Supreme Court will decide if and when the *Lear* case comes back to the Court for final adjudication, but it seems at least possible that the composition of the Court at that time will not accept the present minority view.

Without pursuing the matter further at this time, I believe it fair to say that the Court was probably right in rejecting Adkins' argument that Lear's privileged access to Adkins' ideas prior to the issuance of Adkins' patent did not support Adkins' argument that such access constituted full justification for payment of royalties during the entire period of the agreement without regard to the validity of the patent, although this holding obviously rests on the Court's renunciation of licensee estoppel.

If there is thought to be any danger, the agreement might provide for an initial lump-sum payment, further royalty payments to begin only when one or more patents covering the licensee's operation issue.

Even though the ultimate decision in the *Lear* case may be to sustain Adkins' claim for unpaid royalties on Lear's operations prior to issuance of Adkins' patent, it is conceivable that, in such a situation, a licensee who agrees to pay royalties prior to the issuance of the

licensor's patent, may attempt to justify nonpayment of royalties after 17 years on the ground that payment for a longer period would represent an improper extension of the licensor's patent. As a practical matter, any such contention may of course, in most cases, be somewhat tenuous if several patents included in the license grant are issued later to the licensor with quite different effective dates. How effective such a defense would be seems at least doubtful at this time; this is perhaps not a closed question, especially in view of what may ultimately be decided in the *Lear* case.

A practical solution in such a situation might be to limit the period of the license to 17 years from the date of the agreement, and also to provide that if none of the licensed patents had issued within, say, three years after the agreement date, royalty obligations would be suspended or eliminated until the first patent issued. The question of whether a continuing license would be entered into at the end of the 17 years could simply be left open.

## V

> Should the licensee be required to grant back to the licensor rights under the licensee's patents and if so, to what extent and on what terms?

In approaching this problem, it is important to consider, first, whether we are talking about patents already owned (or based on inventions already made) by the prospective licensee at the time the license agreement is entered into, or later improvement patents based on inventions made after the licensee has been given the benefit of the licensor's know-how. Second, are we talking about an assignment of patents back to the licensor, or a grantback of an exclusive or a nonexclusive license, or a grantback of rights to license others?

Also, it will undoubtedly be necessary to consider whether, in either of these situations, we are concerned with a simple license or exchange of rights between two parties, or whether one of the parties is contemplating or carrying out a general licensing program.

Consider the case where A offers B a license (whether or not in defined-field form) under A's patent or patents, B is the owner of one or more relevant patents, and A has no general licensing program in mind or in action. It is obvious that B will probably insist on some equitable consideration for any grant of rights under his existing patent or patents to A, as for example by way of a royalty reduction or

credit. The rights granted back to A may be a mere nonexclusive license, and if so would seem to create no misuse problems. Even an assignment to A would hardly seem to be questionable in such a case, as witness the *Trans-Wrap* decision.[12] This would appear to be a simple question of negotiation and accord.

If A is engaged in or intends to be engaged in a general licensing program under his patents, a grantback in the form of an assignment or a right to sublicense others, especially if B demands a share of A's royalties paid by other licensees, may create problems. If B's patents are so interrelated with those of A as to make it virtually impossible for A's licensees to operate effectively without using them, then inclusion of these patents in the total patent rights licensed or to be licensed by A will probably be justified (and, incidentally but importantly, may avoid creating indemnity problems.) But acquisition of patents or licensing rights generally should not be carried too far, as for example to such extent as to create such situations as were condemned by Judge Savage in his sustained decision in the *Kobe* case.[13] This does not imply, however, that all such acquisitions are improper.

So far as concerns patents of the licensee on improvements within the field of the license and based on developments made by the licensee after he has acquired knowledge of the licensor's technology and know-how, there is no decision of which I am aware which would hold that the grantback of a nonexclusive license under such patents to the licensor would constitute misuse. Both Mr. McLaren[14] and his predecessor, Mr. Turner,[15] have indicated that the Antitrust Division does not contemplate attacking such grantbacks of nonexclusive licenses, although Mr. McLaren did indicate possible challenge of assignment grantbacks of all improvement patents under Section 1 of the Sherman Act, notwithstanding the *Trans-Wrap* decision.[16] Mr. McLaren has not, so far as I am aware, taken any specific stand regarding grantbacks in the form of sublicensing rights, but it is possible, if not probable, that the Antitrust Division would consider such grantbacks as improper if secured by coercive means, or (as Mr. McLaren intimated) in situations where such grantbacks were used by the licensor to augment his royalty situation even though limited to the licensee's later improvement patents.

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[12] Transparent-Wrap Machine Corp. v. Stokes and Smith Co., 329 U.S. 637 (1947).

[13] Kobe v. Dempsey Pump Co., 89 *USPQ* 54; *aff'd.* 94 *USPQ* 43; *cert. denied* 95 *USPQ* 417.

[14] *Supra* note 8.

[15] *IDEA,* Vol. 10, Conference Number 1966, p. 60.

[16] *Supra* note 12.

It has been rather common practice, at least in oil industry process licenses, to provide that the licensor shall receive (in addition to a nonexclusive license) the nonexclusive right, under the licensee's improvement patents, to grant sublicenses to other licensees who also make corresponding ("reciprocal") grants of nonexclusive sublicensing rights under their improvement patents to the common licensor. The exercise of such sublicensing rights by the licensor is of course limited to use in conjunction with licenses under the licensor's own patent rights in and for the defined field, and cannot be exercised separately.

Here two comments may be offered. First, that it is clearly advisable to avoid any coercive attempt to secure such reciprocal sublicensing grantbacks. The better course is to offer licensees the option of including them or not, as they may choose. In most cases, licensees will not only be willing but happy to grant such rights on the assumption that they will probably gain more than they will lose.

Second, it is undoubtedly advisable to provide specifically that any such reciprocal grantback of a nonexclusive sublicensing right to license others shall be royalty-free to all other licensees. The licensor's patent rights, under the agreement and under corresponding agreements with others, will normally be defined to include all relevant patents under which the licensor either owns or under which he has the right to license others. If sublicensing rights under improvement patents derived from reciprocal grantback clauses in a licensing program are permitted to result in the payment of additional royalties to the common licensor, a question of misuse may possibly arise.

It seems to be a rather common misconception that such grantbacks of sublicensing rights under the licensee's improvement patents are often used to support additional royalty payments to the licensor. Cases in which they have been so used are, so far as I have observed, at least extremely rare. Even where license agreements have, on their face, appeared to require other licensees to pay royalties on operations on transferable rights so acquired by the common licensor, the licensors have, usually at least, waived any such obligation, as no doubt they should. It is better practice, in any event, to provide specifically in the license agreement against any such result or interpretation. "Royalty-augmenting" situations arising through grantbacks of rights under licensees' improvement patents should be avoided; the risks would appear to far exceed any probable gain.

In passing, it may be observed that it might be desirable in a process licensing program to provide for licensing the patents through at least two licensing agents, thus giving prospective licensees the right to choose between them, especially if they are designers and contractors.

For several reasons, this will usually prove to be sound policy. Such licensing agents will probably come up with somewhat different specific plant designs based on their own know-how and which may in fact involve their own patents. A given licensee, having had experience with a given designer-contractor in the construction of other plants, may wish to employ the same firm for the design and construction of the licensed operation. Per contra, if that experience has been unsatisfactory, he may want a different contractor.

Also, in certain types of situations, it may be desirable to provide for licensing access through several channels for a number of different reasons, including the undesirability or even impropriety of the licensor's securing confidential information on the ultimate beneficiary's operations. As a related example, in licensing patents covering a method of prospecting for oil or minerals, a direct license to such ultimate beneficiaries might reveal to the licensor the areas in which the method is used. In such cases, licenses to several service companies to perform such operations for others might well be advisable especially if the ultimate customers or beneficiaries were not likely to be in a position to maintain the necessary equipment. A plurality of licensing agents or licensed service-company operators would increase both competition in and availability of the developments affected. Such arrangements would normally impose no great burden, if any, on the owner-licensor and would probably be of considerable benefit to licensees or their customers. They may well result in more licensed plants being put into operation or in more extensive use of the developments involved.

## VI

> Should the licensed patents be limited to those owned or licensable (whether as issued patents, applications or inventions as yet unpatented or applied for) on the date of the agreement, or at some later time and, if so, at what time?

This, of course, relates to what is generally known as the "cut-off" date, i.e., the date which determines what patents owned, acquired or licensable by the licensor are included. Thus the agreement may run to all such patents based on inventions made prior to that date, and owned or acquired (or licensable) by the licensor prior to that date or some other specified date.

Whether the cut-off date is selected as the date of execution and

delivery of the equipment or as a later date is largely a question of common sense and appreciation (primarily) of what rights are needed by licensees to ensure that they will have the protection they need. In most cases, the licensor will probably have a head start on relevant technological matters in the field covered, and the licensee will be only too anxious to have the licensor's future improvements and patents included. This will apply especially to developments and patents likely to affect the design and operation of the licensee's initial plant.

There is certainly no fixed rule. In a broad settlement, such as the 1931 oil-industry agreements in the cracking field, a date even 17 years ahead may be just what is needed. (It was 1947 in that case.) In a single licensing situation or program, a date late enough for the licensee to get into operation—say two to five years after the agreement is concluded—may be fair and acceptable to both sides. If the cut-off date is far advanced, an option for the licensee to exclude new patents, as referred to above, may be advisable.

While a number of factors may require consideration in determining an appropriate cut-off date, two of these are worth noting. One is that, in a rapidly and continuously developing art, an extended cut-off date will often serve the best interests of both parties and help to "stabilize" the license agreement against difficulties likely to arise later from new developments. Thus, most oil-industry processes, such as cracking, reforming, polymerization, alkylation and the like, are essentially relatively simple and well established in broad process terms. The key in such cases may be the use of a particular type of catalyst. The catalyst or catalysts known and covered by the licensor's patents at the time the license agreement is entered into, will probably be the subject of continuing research by the licensor. In due course, substantially improved catalysts may be developed by making relatively minor changes in catalyst composition often without bringing the use of such newly developed catalysts outside the scope of the licensor's earlier patents. A cut-off date far enough advanced to accommodate the possibility of such improvements is usually desirable in such cases.

The other point is that, where the agreement provides for acquisition by the licensee of fully-paid licensed capacity, an advanced cut-off date (say, three to five years after the agreement date) will obviously run to the licensee's advantage in most cases.

In all such cases, perhaps the main points to be considered are, first, what is reasonable from the standpoints of both parties and, second, whether the licensor's position is so inflexible as to suggest or constitute coercion of the licensee to accept an agreement with terms not merely objectionable to him, but which may in the long run place him

under greater obligations—royalty-wise or otherwise—than are justified by what the rights under the licensor's existing or probable patents are worth. With considerable experience on both sides of the fence, I think I am justified in saying that if the facts are fully developed, most prospective licensees will be able to take care of their interests in license negotiations. There really is not much point in instituting a licensing program if you aren't likely to have any satisfied customers.

In considering and discussing the various questions stated above, it should perhaps be noted that I have been discussing essentially (except with respect to grantbacks) nonexclusive licensing, and with especial reference to general licensing programs. Exclusive licenses may pose different problems and may, on occasion, complicate matters, especially from an antitrust standpoint. However, it is believed to be beyond the scope of this paper to attempt to review all such possible problems.

## Conclusion

In conclusion, it seems clear that defined field licenses present an extremely effective and useful licensing tool. Because of their very nature, various problems may arise in their use which do not apply to simple licenses under single patents or under a specified number of existing patents. However, if such agreements are properly drawn, most if not all of these problems can be overcome. That any type of coercive activity by the licensor is extremely dangerous need hardly be repeated, since in negotiating defined field licenses (or package licenses generally) various questions of misuse may inevitably arise if coercion is present. That such licenses are especially adapted for use in process and method licensing certainly does not mean that they cannot be effectively and advantageously used in other areas, including those involving devices or products (compositions of matter).

The great bulk of process licensing in the oil industry has been in this form. This includes government-sponsored or government-approved licensing programs relating to the production of aviation gasoline. The same was also true of the many patent license agreements entered into in the course of both the U.S. and Canadian wartime synthetic rubber programs. The difficulties and confusion which would have resulted if these agreements had necessarily had to be carried out in some other manner are readily imaginable. Doctrinaire attacks on such agreements should not be permitted to obscure or defeat their practical advantages to both licensees and licensors and their substantial contribution to technological development.

Mr. McLaren has remarked that the Department of Justice has been

having some difficulty in finding cases in which to test its views on price-fixing in patent licenses because lawyers are increasingly careful in drawing license agreements. Careful consideration of condemned provisions and appreciation of the reasonable needs of a licensee, with fairness to both parties, make good sense. Bad facts make bad law, as has often been remarked. It is equally true that sound and fair practices help to make good law, while burdensome restrictions and provisions make bad agreements. It is to be hoped that the difficulty Mr. McLaren referred to will increase rather than diminish, not only with respect to price-fixing clauses, but also to other types of license restrictions and limitations. But adverse views persist, and new ones may be expected.

As Learned Hand once remarked (quoting, I believe, a mixture of *Pirates of Penzance* and *The Cricket on the Hearth:* "Take heart of grace; the Devil is not yet dead." And it is usually better to avoid the Devil than to try to face him down—or negotiate with him.

# Creativity: Its Nature and Nurture*

IRVING H. SIEGEL**

SUMMARY

THREE DISSIMILAR RECENT BOOKS on creativity provide a focus for the discussion of problems of description, recognition, and cultivation. Such problems are of interest nowadays not only to psychologists and educators but also to businessmen, government officials, members of the Bar, and students of intellectual property. The annual commitment of many billions of public and private dollars to civilian and

* This is an interim report of a continuing project of The PTC Research Institute on creative manpower. For an earlier treatment of a kindred topic by the author, see "Employee Creativity and Organizational Aims," *IDEA,* Vol. 9, No. 3 (Fall 1965), pp. 401-425.

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military research and development objectives provides a sufficient, though incomplete, explanation of this expanded interest. So extensive is the literature on creativity and so varied are the facets treated in the three works under review that our essay must be regarded as a light reconnaissance.

## Creativity as a "System"

This is a paper about creativity, a subject that has attracted attention under various names throughout history. Before psychology became an independent discipline during the nineteenth century, insights into the creative process were supplied largely by philosophers—for example, Plato, Aristotle, and Kant. (From remarks made below, it should be evident that philosophers and other "generalists" can still contribute valuable hypotheses for exploration in this age of empiricism.) When Galton wrote *Hereditary Genius* (1869), the total annual output of scientific literature was still small, and only a very tiny fraction was devoted to creativity, or to the broader topic of learning, or to psychology in general. New circumstances, especially since World War II, have made creativity a common word outside the laboratory, especially in the schools and in the business world. One important reason for this change was the growth of federal research and development support; another was the encouragement of private support by a clarification in the Internal Revenue Code of 1954. The cold war of the 1950's and the Soviet challenge in missile and space technology gave a sense of urgency to the study of the nature and nurture of creativity. The specialized literature has since burgeoned, and the focus of interest has shifted from the artist to the scientist.

"Creativity" may be defined, in terms of another equally fashionable word, as a "system" characterized by the production of novel and nonobvious results (e.g., inventions). Because creativity is a system, a knowledgeable student is not usually satisfied to regard a creative result as a seamless integer; he is tempted to try his hand at unraveling. Also because it is a system, the investigator is not content, as a rule, just to analyze it into a many-splintered thing. He knows that the whole thing "works," that the system has wrought a significant result; yet, if he tries to reassemble the many identified parts (the personal qualities, tools, unitary processes, and environmental factors) into an organic unity, he may be chagrined or impressed to have missed some essential element.

Although many vital ingredients that escape cataloging and reincor-

poration could well be reckoned as decisively important by the analytical observer, *all* the parts of a system that contribute actively or passively to the production of the recorded critical result are pertinent. Even the redundancy included in a system may fulfill its "purpose" of providing an alternate, unblocked route. Thus, it is easy to omit a relevant, but contradictory, personal trait; or to ignore a significant tension of opposing unitary processes; or to overlook an available capacity that has gone unutilized. Furthermore, any diagram that is drawn may show too linear and too direct a progression toward the creative end-result. Thus, a model may underrepresent the potential or actual contributions of recursion, of interaction and interpenetration, of baffles and buffers, of digression and delay. Finally, even if the components of a system could be completely specified with their correct linkages, the "weights" would still vary from one instance of achievement to another, so the efficacy of prescriptions for the quick and easy enhancement of creativity must remain doubtful. (Because of variation in weights as well as in certain qualities, we might also entertain some skepticism about efforts to delineate the composite creative personality.) The multiplicity of handles of any system, the impatience for solution of practical problems, and the rewards for apparent success encourage oversimplification and faddism (if not charlatanry) in the design of education and training programs for such enhancement.

These remarks hardly exhaust the issues raised by a "systems approach." Thus, we have not even mentioned the depth of explanation sought or required. The categories adequate for a discussion of creativity on the conscious and observable levels would not do for an analysis directed toward subconscious motives and mechanisms. Furthermore, if the purpose of a study is to relate creative potential or performance to psychological observables only, we may prefer a model that subsumes interpersonal, economic, social, and other environmental interactions under the identified psychological heads. If, on the other hand, we choose to represent all the nonpsychological variables explicitly, we may "freeze" their values (as parameters) and then direct attention to the rest of the system. In the first case, we derive correlations or propositions concerning creativity that are supposedly "absolute" or "invariant"; in the second, the findings about creativity are frankly "conditional" or "circumstantial."

Having said all this, we can appreciate the wisdom still resident in a beautiful sentence of Heraclitus, a sentence that relates to creativity as a system:

> Men do not understand how that which is torn in different directions comes into accord with itself—harmony in contrariety, as in the case of the bow and lyre.

This sentence, incidentally, was quoted by the philosopher, Cassirer, right after a remark on man's "functional unity" that also seems especially applicable to our topic:

> Such unity does not presuppose a homogeneity of the various elements of which it consists. Not merely does it admit of, it even requires, a multiplicity and multiformity of its constituent parts. For this is a dialectic unity, a coexistence of contraries.[1]

The rest of this paper samples the contents of, and also comments upon, three of the numerous recent books on creativity. The order of discussion corresponds to the initial publication dates of these books:

(1) Arthur Koestler, *The Act of Creation* (New York: Dell, 1967; paperback, copyright in 1964 and reprinted by permission of Macmillan).
(2) Liam Hudson, *Contrary Imaginations* (Baltimore: Penguin, 1967: paperback, first published by Methuen in 1966).
(3) Frank Barron, *Creative Person and Creative Process* (New York: Holt, Rinehart, and Winston, 1969).

## KOESTLER'S VOLUME

Sir Cyril Burt, an elder of psychometrics, contributes a helpful foreword to Koestler's book. He notes (as Barron also does, at greater length) the early identification of creativity with divine favor or inspiration in myth or magic. He considers "curious" the long delay before methodical study. Although Galton's book of 1869 suggested that the exceptional development of general intelligence provides the clue to genius, his later writings acknowledged additional important aptitudes: a spontaneous "fluency" in generating images and ideas, receptivity, and intuition or insight. A fourth additional factor was suggested later by McDougall, his follower: "productive" or "deviant association." Burt parenthetically observes: "What all these terms really cover is still a problem for intensive inquiry." A fifth pertinent special quality—enthusiasm for work, for sustained effort—was called "zeal" by Galton.

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[1] Ernst Cassirer, *An Essay on Man* (New York: Doubleday, 1953, paperback), p. 279.

A general divergence between early British and modern American views of creativity is cited by Burt. The standard British position has emphasized quantity—an individual's possession or development of common human attributes to an inordinate degree. In the United States, however, a distinction tends to be made between two types of intellectual ability. Thus, the usual intelligence tests are now viewed as measuring a relatively "superficial" capacity, while certain other tests discriminate a "higher" order of talent deserving the name of "creativity." Burt insists that "we are still left rather in the dark" as to the nature of this second capacity.

Indeed, "bewildered confusion" is the description that Burt applies to the current state of professional opinion on the subject of creativity, and he thinks an "entirely fresh examination" is in order, "from top to bottom." After all, "creativity" is a relative newcomer to the *Oxford English Dictionary,* and only since Sputnik has it become a "glamour term among both English and American educationists." Nevertheless, the ideas connoted by the term have long been recognized, Burt observes, by non-psychologists and by the world of affairs in general—for example, in the design and administration of patent and copyright laws. Civilization recognizes a debt to gifted individuals, yet the culture itself, including the spirit of the time (the *Zeitgeist,* as Goethe called it), also deserves much credit. Until we decide what the "act of creation" really is, Burt opines, it is idle to argue the relative contributions of the individual's genetic endowment and of the social context in which the individual deploys. Unfortunately, the professional tools commonly applied, such as mental tests, are inadequate. It is in this limitation that Burt sees an opportunity for significant contributions by people like Koestler, a novelist whose introspections and reflections are buttressed by a wide familiarity with the technical literature and by some relevant education.

*The Act of Creation,* according to Burt, "will at once take its place as a classic among recent contributions to the science of the human mind." To have produced an instant "classic" would seem a remarkable accomplishment—or a sufficient compliment, since Burt's further comments are more guarded. He adds that Koestler proposes a "novel synthesis" asserting the universality of creative performance. Thus, at every stage of the evolutionary hierarchy, from the microorganism to the most complex being, creativity is perceivable as the "actualization of surplus potential" under challenging conditions. (Well might we wonder whether this synthesis tells much about "the way things are," in Bridgman's phrase, or indicates instead a way in which one might

prefer to look at all things. As a generalization, does Koestler's idea go significantly beyond, say, Hegel's dialectical triplet of "thesis, antithesis, and synthesis," which could probably be imposed on all observable or imaginable processes or behavior, not simply psychic creation?)

Acting now as a professional kibitzer looking over an amateur's shoulder, Burt gently concedes an inclination to "query minor details here and there," and he admits uneasiness over the absence of information and evidence. This absence is critical, but he carefully directs criticism away from Koestler:

> Indeed, the most valuable feature of Mr. Koestler's book is that it suggests so many problems and provisional hypotheses for direct scientific inquiry in a deplorably neglected field. (P. 19.)

Thus, Burt remains able to praise Koestler's "eclectic survey" as "highly original" and "timely," as providing valuable premises for the researcher and teacher concerned with the identification, training, and encouragement of creative persons.

Burt observes that psychologists have finally recognized the weakness of intelligence tests. (Hudson and Barron pursue this point in some detail.) These tools "select the efficient learner and the verbal reasoner rather than intuitive observers or constructive and critical thinkers." The child who gives an original or unexpected answer is penalized by mechanical scoring. Besides and alas, "even when by some happy chance our methods of selection have picked out a potential inventor or budding genius, we still have no notion how he should be encouraged and instructed so as to develop to the utmost his unusual latent powers."

Any reader who has a hankering after more matter and less art, who simply wants to know what Koestler's views really are, will be thwarted by the length, labyrinthine structure, personalized jargon, and baroque style of the rest of the volume. A trip through the volume on foot is difficult; the trail is seldom clear or unimpeded, and it is always hard to see the trees for the denseness of the forest of ubiquitous shrubs. A brief preface by the author, too much shorter than Burt's foreword, provides only a minimal guide. The volume, Koestler tells us, consists of "two books" (and it is for this reason that we refer to the whole as a "volume"). The first presents a theory of the act of creation. According to this theory, a common "basic pattern" underlies "scientific discovery, artistic originality, and comic inspiration." (We have already remarked that this pattern may not inhere in the things observed but in the observer's own mental prism. If such a

distinction did not matter, speculation would be a "scientific method" that is always as effective as laborious experimentation.) The second book discusses the generalization described by Burt as a "novel synthesis." Phenomena like creative achievement are recognizable throughout the organic hierarchy from the fertile egg to the "fertile brain."

After the short preface, Koestler spins out numerous loosely connected essays over hundreds of pages in small print. The idea of packaging these essays into two "books" to make a volume—and into the three "parts" that comprise the first book—seems to have occurred much too late to permit a successful integration. Nevertheless, this discursive volume has undeniable merits. It offers much nourishment for leisurely nibbling, sipping, or inhaling. It has the extra value of revealing extensively the thoughts of a distinguished creative person on creativity. It includes many pertinent quotations and anecdotes, good documentation, and a detailed index—a paradise for the impatient practitioner of the art of ocular frisk or for human hawks that cannibalize the intellectual products of others.

With the help of Ariadne's thread (or markers made of torn newspaper edges), a reader may derive some satisfaction in having identified and followed some of the persistent or recurring themes. For example, from pages 38-42, 94-96, and 207-11, one could gather that inventive humor may take the form of paradox creation, while scientific discovery may take the form of paradox resolution; and that, in both instances, the process may be characterized as the interlocking, or juxtaposition, of incompatible or previously unrelated "matrices" of thought.

Perhaps, the sense of novelty of such contributions is unduly enhanced by the author's special language. This possibility is suggested by Barron's brief passage devoted to *The Act of Creation*. Koestler, according to this evaluation, is a "historian of ideas and a scholar in the general area of intellectual biography." In a "monumental tome,"

> Koestler has assembled a considerable body of evidence . . . to support the view that great insights, results of what he calls the "bisociative process," occur only in minds that are amply prepared, through saturation in the relevant scholarly or artistic disciplines, to see hidden connections. You have to know a lot about the old to see the new. Although one's education may be unconventional . . . hard work and dedicated practice are the almost invariable precursors of original and distinctive achievement.[2]

[2] Barron, p. 3.

The poetry released, the idea that remains seems prosaic. A professional psychologist seems to have shut the oven door hard while a novelist's, or "historian's," cake was rising. Is it fair to sense in this limited acknowledgment that Koestler is not regarded as a member of The Club? After all, he is omitted from Barron's "name index," extensive list of "references," and extensive "selected bibliography."

## HUDSON'S VOLUME

The book by Hudson (now synonymous with "volume") combines the presentation of empirical findings with critical commentary and deliberate speculation. By "contrary imaginations," the author, a British psychologist, means to distinguish "convergers" and "divergers." Thus, he adopts a viewpoint that Burt would call American. He applies the first term (as Guilford, Torrance, and other American investigators would) to students who perform well on so-called intelligence tests (by converging on the right preestablished answers) and the second term to students who perform well on specially designed, "open-ended," so-called creativity tests.

Hudson's first chapter, dealing with "presuppositions," exposes three major professional failings. First, he insists that "much of educational psychology is trivial," particularly for having made a fetish of measurement. Second, he distrusts a "purely statistical approach to psychological problems." Indeed, "the central failing among mental testers has been the neglect of inconvenient evidence," of "all forms of rude human exception." Hudson's third *bête noire* is the propensity of his colleagues to erect "theories" with little regard to the investigable real nature of people: "It is the welter [of people's individuality] that we must observe and measure; and if we do observe, we are invariably forced to modify our original hunches [which are crude theories] out of all recognition." Hudson reminds his fellows that proper theories are vulnerable to test, that theories should not be rendered "unsinkable" in principle and in spite of evidence. All three of his prejudices, Hudson notes, have a common theme, the evasion of the consequences of adverse information.

In pursuing the question of triviality, Hudson has something to say that echoes our own introductory remarks, the quotations from Heraclitus and Cassirer, and Burt's comments on Koestler's book:

> My research deals with two questions; that of differences in intellectual type, and that of thinking originally, productively, or in any

> sense well. The first is moderately interesting; the second is absorbing and profoundly important. Yet my results seem invariably to illuminate the first of these, not the second. Such discoveries as I have made about the originality of people's thoughts are negative—or, if positive, shadowy in the extreme. The question of originality is, in many ways, the most alluring that psychology has to offer, but it also seems to be one of the most difficult. (P. 27.)

Hudson's second chapter draws a "moral" from his own work and other recent researches: "that the academically successful boy is distinguished not by his intellectual apparatus but the use he sees fit to make of it." This conclusion would seem obvious to almost any non-psychologist (as Hudson later acknowledges), but it is said to "run counter to one of the most persistent. . . assumptions about the nature of intelligence." Thus, a "very high" intelligence quotient (IQ) is commonly thought to equip a man better to be a competent scientist or scholar than a "good but not outstanding" score. Higher intelligence is attributed to the man with a score of 180 than to a man scoring 130; presumably, "the higher the IQ the better." But accumulating evidence on both sides of the Atlantic argues against this proposition. Although a man scoring 170 is much more likely to be a better thinker than a man scoring 70, and the same appears to be true when the compared scores are 130 and 100, the relation "breaks down" when the paired IQ's are high.

A chapter on convergers and divergers acknowledges Hudson's debt to Getzels and Jackson, two American investigators who, within the past decade, have devised and applied a second class of tests to distinguish the "high creative" child from the one with a "high IQ." Hudson finds that most arts specialists are weak in IQ scoring and perform much better on open-ended tests; and he finds the reverse for scientists. Thus, "arts specialists are on the whole divergers, physical scientists convergers." The vast majority of divergers proceed to study history, literature, and modern languages rather than the physical sciences; and most convergers enter mathematics, physics, and chemistry rather than the arts. It appears that biology, geography, economics, and general arts attract convergers and divergers "in roughly equal proportions." Such results cast doubt on common practice in the recruitment and education of young scientists; but they equally cast doubt on the value of open-ended tests for measuring creativity, "real originality." Though aptitude measurement and creativity research really represent two different fields, they are subtly interconnected; and they are too frequently confounded.

The last three chapters of Hudson's book should be of special

interest to readers of *IDEA*; but, before skipping to them, we wish to interpolate some remarks on the concepts of convergence and divergence. These observations are compatible with Hudson's approach and temper but may not at all accord with Barron's present terminological and schematic preferences.

First, the labels of "converger" and "diverger" should not be too enthusiastically applied to individuals outside the context of certain tests. Viewed broadly enough or in real time of significant duration, the practice of an art or science by any person—or even his mere living—typically requires a mixture of convergent and divergent thinking, however primitive or advanced. This mixture can, of course, be altered by institutionalization and specialization, but it cannot be undone except at the most primitive levels.

Second, the degree of divergence allowed or sought in an institutional setting does not necessarily distinguish the orders of creativity of people or acts. Thus, we should discourage the evaluation of a free-lancer or an unmanageable employee-inventor who can function only in a narrow area of his own choice as "more creative" than an urbane or well-mannered consultant-inventor who successfully addresses himself to a wide variety of technical problems set for him by others.

Third, it is tempting to describe a scientific or technological act that fills a predefined gap or that occurs in a bypassed area as "convergent," even though the act may really require a high order of creativity. Thus, it would be a mistake to prejudge the degree of creativity involved in completing the Mendeleev periodic table or in producing another transuranic element. Furthermore, a certain intellectual fortitude may be required for the discovery, or for the correct interpretation, of a phenomenon that a current theory rules out—such as X-rays, "free radicals," radioactivity, or the chemical reactivity of "inert" elements (e.g., xenon). While the frontier of science advances, a creative hardiness still insists on operating in worked-out "classical" precincts—and leads, for example, to the discovery and production of "polywater" in the 1960's.

Fourth, we should be wary of the metaphorical extension of "convergence" and "divergence" beyond forms of thought, individual behavior, and creative acts to the description of the stream of scientific or technological history. The evolution of informed belief, the replacement of one "paradigm" or theoretical framework by another, the challenge and succession of grand theories may, indeed, resemble intrapersonal transactions or the interaction of individuals with their total environment; and it may, indeed, be illuminating to point out

these similarities. As we have said earlier, however, a way of looking at things need not reveal to us the way they actually are. Analogy is not equivalence, and equivalence is not identity.

Chapter 6 of Hudson's book deals with "creativity," which he regards as synonymous with "originality" but as "tangential" to convergence and divergence. He does not accept the view, which he labels as essentially American, that the diverger is "potentially creative" while the converger is not. Indeed, he feels that creativity and convergence-divergence should be "carefully distinguished" so that their subtle interconnections could better be traced.

In our post-Sputnik era, the failure of intelligence tests to predict successfully the scientific potential of persons with high IQ's has generated new "research maxims" that Hudson cannot fully accept. Not only is it incorrect, in his view, to conclude that the conventional intelligence test is obsolete but also that certain new open-ended tests are really valid indicators of "creativity." A third maxim that has gained hold, however, does seem to have a strong factual foundation—that other aspects of personality must be considered with intellectual factors for clues to future creative performance. Rather than better intelligence tests, it seems, we need better tests of personality. Hudson rejects the idea that the divergers and "all-rounders" break new ground while the convergers plod in the ruts. He also believes that the high-level scientist possesses some of the divergent qualities of the artist, while the achieving artist shows the "rigour and dedicated single-mindedness" attributed to the scientist. (Here, Hudson accepts the notion of tension between opposing forces, a point made in our introduction.) He discounts the view that convergers are neurotic and divergers are not: "The neurotic is not the man who adopts a particular intellectual and personal style but the one who, having adopted a style, suffers its weaknesses without enjoying its strengths." Finally, he doubts the new maxim that conventional education is hostile to creativity while progressive education is not. Concluding comments on the personalities of two scientists (Kepler and Darwin) and two artists (Turner and Rilke) confirm that "originality is not a simple affair."

Chapter 7 speculates on the "causes" of difference between convergers and divergers, particularly in the light of prior work of MacKinnon, Roe, and McClelland and new psychoanalytic insights concerning family relationships. These causes could be defined "psychologically, sociologically, psychometrically or in terms that we do not yet possess." Assigning great importance to the early years at home, he offers the "guess" that:

> . . . the future converger's parents (themselves convergers) express their love for him not directly, or physically, but through the warmth of their approval when he masters impersonal, practical skills. Conversely, the future diverger's parents (themselves divergers) hold their son close, distrusting his mastery of practical skills. On this argument, the converger grows up *expecting* one pattern, the diverger another. (P. 153.)

The final chapter deals with the "more hazardous topic" of the "causes of originality"—the sources of "creativity." Instead of identifying the diverger with the creative individual, Hudson believes that original work comes from convergers and divergers. (We have preferred to say that creative thinking has both divergent and convergent elements.) Indeed, convergence and divergence do not determine originality; instead, if a person is original, they do influence "the field and the style" in which his originality will manifest itself. Thus, the "roots" of creativity do not lie in convergence or divergence but in other aspects of personality. Although he stresses psychological factors, Hudson concedes the importance of social and institutional elements as he looks into the original thinker's persistence, self-confidence, aggressive pursuit of ideas, self-exposure to "crises," selective rebelliousness, and "nympholepsy" (i.e., search for some ideal outside himself for a sense of completion).

## Barron's Volume

A third variety of discussion—the retrospections and observations of an exemplar of the modern American school—is represented by Barron's book. As a seasoned campaigner, Barron discerns significant progress even though modern techniques "can offer only the most modest of beginnings to scientific knowledge in the area of psychic creativity." This progress he ascribes "to new efforts at measurement and to new substantive inquiries directed towards the delineation of personality characteristics of notably creative human beings."

In studying creativity, Barron observes, psychologists must range widely. After all, they are addressing "a living, and hence changing, form," and they are trying to "understand that form, a particular human person, in terms of its capacity to generate novelty." Accordingly, they must examine the individual's history, current state, conscious and unconscious drives, intellect and temperament, and the larger environment—for "all of these are relevant to the creative act."

"Modest instruments" are brought to bear on the difficult subject of creativity—tests and measurements, interview techniques, and the

ability of testers and interviewers to observe and analyze. Since aspects of personality are relevant, measurement must reach into the domains of "perception, ideation, temperament, and motivation." An effort is made to avoid confusion of the "merely eccentric" and the truly creative. Barron's experience has included the use of intensive interviews to probe the lives, careers, styles, and philosophy of talented achievers. He devotes much space to the discussion of a thorough "living-in assessment" that he has designed.

The tests available for identification and appraisal of creative ability, Barron agrees, are inadequate. He concedes the difficulty of meeting the objections that have been raised, though he is not discouraged by them. One objection is that the tests are really superficial, failing to plumb the true depths of creativity. Furthermore, by measuring creative ability in fragments, the tests neglect the individual's integral capacity. Finally, the brevity and close timing of tests "do violence to the very essence of the creative process, which goes at its own pace, . . . is behaviorally silent for long periods of time, and is easily aborted if someone is always blowing a whistle on it."

No less than the parent, lawmaker, or welfare worker does the psychologist-educator seek the constructive modification of an individual's behavior and potentials. Barron is interested in ways of affecting the "rate, degree, and direction of possible change" in such complex human properties as intelligence and creativity. These properties should not be presumed constant despite the apparent importance of hereditary factors:

> Intelligence is *not* simply what our intelligence tests measure. Individuals who have suffered severe cultural deprivation are penalized relative to others by the limited nature of widely used measures; so too are the potentially creative. Persons with special sensibilities and talents . . . are often underrated in terms of functional intelligence because of the personality and motivational factors associated with creativity, themselves part of the integral meaning of the creative intellect. (Pp. 120-121.)

For children, we are ready to concede the relevance of early life experience and of treatment in the classroom to the flowering or stifling of creative powers. In adulthood, we may find that certain exercises and diets are beneficial. Barron has come to see some merit in "brainstorming" and "synectics" (which relies heavily on analogy for the generation of novel ideas); and he dispassionately reviews the claims made for the favorable alteration of intellectual and creative potentials by means of chemicals, including hallucinogens.

Readers concerned with the recruitment and management of

creative manpower will find helpful, even if they do not concur in, the discussion by Barron of both (a) the diversity of "styles of scientific behavior in a modern laboratory setting" and (b) the composite profile of the "productive scientist." Eight styles, designated as follows, were distinguished by two testers, Gough and Woodworth: the zealot, the initiator, the diagnostician, the scholar, the artificer, the esthetician, the methodologist, and the independent. These types, of course, overlap; and they need not strike the experienced personnel officer or administrator as exhaustive.

The "unified picture" of a scientist emerges from the investigations of nine researchers, whose methods "ranged from clinical interviews and projective techniques through empirically developed biographical inventories to factor-based tests." With some condensation of language, this "common core" of ten traits is presented by Barron:

(1) High ego strength and emotional stability
(2) Self-sufficiency, self-direction, and desire for autonomy
(3) Considerable control over impulse
(4) Superior general intelligence
(5) Penchant for abstract thinking and for comprehensive and elegant explanation
(6) Dominance and assertiveness
(7) Nonconformity in thought
(8) Distance in interpersonal relationships—preference for work with things or data rather than people
(9) Disposition to pit own powers in "wagers" against nature
(10) Liking for order, method, and exactness and eager acceptance of the challenge presented by exception and contradiction

This list is generally based on males. (Barron also has a brief chapter on creative women.) In the sixth item, Barron includes the clause: "but a dislike of personally toned controversy." This clause was omitted in deference to the history of science, which is punctuated with quarrels. Experience at any university, laboratory, or think tank should also suggest that, if this type of controversy is really disliked, it is also energetically practiced. Thus, a profile might well include a tendency toward peevishness or pettishness in a scientist's relationships with selected peers or with superiors. Greater acknowledgment should have been made of the importance of pairs of opposing traits.

Curiously, Barron does discuss the role of opposing properties in a masterful manner at the very end of the book; but he follows his composite picture of the scientist with a passage (quoted at length from an earlier joint work) that indicates the dominant personal traits

supposedly required at the different stages of a grand cycle of scientific advancement. The latter exercise is valiant, but seems largely misdirected. A branch or style of scientific inquiry, a system of codified knowledge, does not simply develop and mature at the behest of the *Zeitgeist* according to some mysterious script that cues the scientist possessing suitable qualities at the appropriate times. Any great scientist who happens to be alive does not ask for permission to come from the wings to do his thing. Indeed, he intrudes to help write or rewrite the presumed script, and he improvises daringly. By presenting contradictions that challenge, by proposing novel syntheses, he hastens or resolves the crisis of the play that he chooses to enter. Maybe, the time has to be ripe for a Newton or an Einstein to advance science at a well publicized leading edge. If the time is not ripe, he does not become the darling of his own age, but may yet become a darling of a later one as he makes significant contributions in the classical boondocks and probably prepares the way for later crises or syntheses on frontiers that are not yet fashionable to watch.

In a philosophical final chapter, Barron considers the role of paradox. Creativity is like other human systems in providing scope for the constructive interplay of restraint and freedom, order and disorder, concentration and dispersion:

> In the creative process there is an incessant dialectic and an essential tension between two seemingly opposed dispositional tendencies: the tendency towards structuring and integration and the tendency towards the disruption of structure and diffusion of energy and attention. (Pp. 178-179.)

This tension of opposites permits progression to still "higher" (i.e., to more complex or more highly organized) levels of interplay. Since different results are wrought in different individuals, the national supply of creative talent becomes more diversified as it is also augmented. If the insights of the final chapter could have informed the whole book, our understanding of the subject would have been raised to a still higher plane.

## Concluding Remarks

As a text around which to organize this closing section, we have taken two sentences from Barron's book:

> Does the loss of potential for creative expression [in adults] occur as a consequence of some organic law, or is it that we *learn* to inhibit creativity in ourselves? The question has the greatest importance for

> education and for society as a whole, since we shall need all the potential creativity of human beings if we are to solve the problems now confronting us as a species. (P. 176.)

First, although it is fitting and proper for educators and psychologists to seek ways to enhance the individual's "potential for creative expression," they should at the same time acknowledge that a voluntary or selective inhibition of creativity can also be constructive. Surely, mental health and the advancement of individual interests through group activity depend on much more than creative expression, and they do not require a maximum of such expression in any case. An effective dynamic balance has to be achieved and maintained within the self for satisfactory functioning in one's total environment through time—a balance that combines creative expression with restraint and with the other behavioral attributes pertinent to living.

Second, it is essential within an organization also to achieve and maintain appropriate balance for the fullest realization of common objectives. The creative potential of different individuals has to be encouraged, restrained, and combined skillfully in a context of continual group interaction. In a talk given at the Thirteenth Annual Public Conference of The PTC Research Institute, the present author noted that even the availability of two different kinds of creative employees poses a challenge to the manager:

> One kind is responsive to external command. The other kind listens only to private angels who strum the inner ear. The first kind is generally more useful to executives who need technical innovations. Nevertheless, it is the second kind who have the greater reputation for creativity—despite the net loss commonly experienced in attempts to harness them in organizations.[3]

The relevance of other factors than creativity and the role of inhibition in the organizational setting were also stressed in the author's talk:

> . . . [A]n organization is really limited in the amount of knowledge or creativity that it can stand—at the top, in the middle, and at the bottom. Can everyone act like Leonardo or Michelangelo and get away with it when everyone has special gifts or education? When we all become gifted or educated, somebody will still have to do the daily grubby work that keeps any organization going. Street-cleaning will still be necessary and useful when everyone has a Ph.D. Bureaucracies and meaningless jobs . . . will continue to exist because they will continue to be needed.
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> The key to all organization . . . will remain the diversity of skills in proper amounts and in proper blends. An excessive emphasis on

[3] I. H. Siegel, in *IDEA,* Volume 13, Conference Number 1969, p. 27.

> knowledge or creativity can produce functional imbalances that are eventually counterproductive. A good rule is this: Too much of a good thing is a bad thing. Of course, there is a tradeoff between good organization and good personnel, and every executive who reads the right textbooks should strive for the optimum. But, taking my cue from T.S. Eliot, I doubt that systems will ever become so perfect that people will no longer need to be good.[4]

Third, unless we use the term "creativity" in an imperialistic manner to embrace all inventive behavior that is conducive to the good life, it is not easy to accept the view that we "shall need all the potential creativity of human beings" for curing the discontents of civilization. Are not many of the ills of our planetary life, such as war, overcrowding, and pollution, themselves the results, in part, of past creative expression in the realms of science and technology? Should we label as "creative" the new forms of collective restraint that may be designed "in the public interest" by soft scientists of the future who abhor government uniforms but admire government contracts? Will the dreams of "creative" planners become the nightmares of people? Even now, it seems, with technical creativity not yet so rampant as proposed, the problems of the human species could still be alleviated by more good will, a firmer commitment to social justice, a general spirit of conciliation. Do such virtues automatically become "creative" if they become sufficiently manifest?

Finally, a worthy remaining task for the "creative" educator and psychologist is to discover ways to dispose future talented personnel, their superiors, their colleagues, and inferiors to the "responsible" exercise and restraint of technical "creativity" in behalf of man's life. This task is operationally hard to define in a systems context, but its importance is succinctly stated in the abstract of a recent talk on "Scientists of the Future" by a prominent anthropologist:

> Half of the scientists in the history of the world are alive today. Although we know much about the kind of world that scientists have developed, we know little about the conditions—in family life, in schools, and in the climate of opinion—which facilitate the development of responsible scientists who are crucial for the emerging planetary society.[5]

The reader who needs an ounce of civet to sweeten the imagination may get only a whiff of reassurance from the next sentence of the abstract: "A snack luncheon will be served at 12:30 P.M."

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[4] Siegel, *ibid.*, p. 26.

[5] Abstract of a paper by Margaret Mead, *Monthly Program of the New York Academy of Science* (November 1969), p. 18.

# Copyright and the Developing Nations

CHARLES A. KENNEDY*

SUMMARY

THIS ARTICLE WAS PREPARED with the intention of focusing attention on the major factors that bear directly upon the problems related to international copyright which developing countries face. While there are improvements which can and should be made in the legal structure of international copyright, little effective attention has been given to the social and economic factors which are vitally important to the indigenous creation, production and distribution of copyrighted material so urgently needed by developing countries. The thrust of this article is to examine the needs of developing countries and their capacity to meet these needs.

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## INTRODUCTION

SINCE THE EARLY 1960's, when the copyright problems of developing countries began to emerge as a major issue in international copyright, almost all of the discussion has been directed to methods of revising or adjusting the two major international copyright conventions: the Berne Convention for the Protection of Literary and Artistic Works as revised, and the Universal Copyright Convention of 1952. The debates have centered around efforts to provide users in developing countries with greater access to the copyrighted works of developed countries at reduced royalty rates, particularly as a means of meeting urgent book needs in the rapidly expanding academic and technical educational programs in those countries. The discussions so far have recognized that copyright is only one factor contributing to the educational and cultural problems facing the developing countries, but no real effort has been made to analyze the role of national and international copyright law in the larger context. This paper, while in no way definitive, represents an effort to suggest copyright's relationship to the other social, economic, and practical problems impeding the widespread use of copyrighted works in developing nations.

For purposes of this analysis, it might prove helpful to divide the question of copyright into three major components: (1) the legal concept; (2) practices developed under the concept; and (3) the related social and economic factors.

## LEGAL CONCEPTS

As a legal concept copyright defines what shall qualify as copyrightable material, specifies the applicable period of protection, provides a bundle of limited rights accruing to the creators of copyrightable material, and prescribes what must be done to secure and maintain protection. The essence of copyright is the granting of exclusive, though transferable, control for a significant period of time over certain uses of the copyrightable material. In making this grant of protection, the law recognizes a basic right of ownership in the fruits of the labors of authors, composers, artists, and other creators of intellectual property.

## PRACTICES DEVELOPED

The practices that have been developed under the legal concept of copyright include methods of legal enforcement, protection against

abuses of the exclusive right, and contractual arrangements for getting copyright material from the owner to the user.

It would appear from the available literature, and from discussions with publishers in the developing nations, that the satisfaction of book needs of developing countries are hindered by inadequate information, and in many cases involve difficulties in working out contractual arrangements. Expressed hindrances generally fall into four categories:

(1) Knowing what is available;
(2) Identifying the copyright owners of needed materials;
(3) Simplified procedures of contracting for rights, and
(4) Royalty terms commensurate with the ability to pay.

The vast majority of published material needed by the developing countries falls into the "textbook" or "educational" category, especially advanced texts in the scientific and technical fields. Almost all of this type of material originates in the developed countries and in large volume. Developing countries face the need to know what published material is available for a given subject. In the absence of a central file of information, the process of discovery becomes one of seeking out individual publishers in the developed countries—and in some cases, seeking out individual authors who have retained the reprint or translation rights to their works. This, of course, leads into the problem of identifying the owners of the desired material and being able to communicate with them expeditiously.

Once having identified and contacted the owners, developing country publishers need simplified contracts which do not overtax their resources. Publishers in developing countries need consideration of their problems in trying to serve limited markets. In some cases owners of copyrighted material have recognized these problems and taken steps to mitigate the difficulties. However, the lack of uniformity in treatment from country to country, publisher to publisher, et cetera, has led to understandable frustrations. Since copyright appeared to be operating as an active hindrance to the fulfillment of educational goals, some officials and private citizens in the developing countries have drawn the conclusion that the quickest short-term solution to their problems would be the curtailment of copyright protection for foreign works.

It is essential to recognize, however, that both the legal concept of copyright and the practices growing out of it have meaning and economic impact only where there is a demand for copyrighted material and a capability for supplying that demand. In a country where there is little or no desire for works of a certain type, or where

there are no technological means for supplying those works even if they were wanted, copyright control and licensing have no significance except perhaps as a symbol.

## Social and Economic Factors

In most of the developed nations of the world, the social and economic factors combine to support the creation, production and distribution of large quantities of copyrightable material. Under the economic systems of most of these nations, production and dissemination are undertaken by private enterprises operating in competition with one another and with the object of earning a return on their labors and investments. Under these conditions, the legal protection offered by copyright is vital to insulate authors and other copyright owners against unauthorized exploitation of their creative or productive efforts. A characteristic of these highly developed publishing and producing industries is volume production for large markets. It is also of interest that the international traffic in published material[1] and the licensing of publication rights are greatest between nations with well developed publishing industries[2] where there are strong mutual interests in the protection accorded by copyright.

In the developing nations, the social and economic factors necessary for the indigenous creation, production and distribution of copyrightable material will rarely combine to support a self-sufficient publishing industry. There is no dearth of factual information on the problems faced by developing countries in establishing viable publishing industries. Governments and international organizations[3] have conducted

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[1] In 1966 for example, approximately 80% of total U.S. exports of "Printed Books" went to areas generally classified as developed. In the same year, British exports in this classification to the same areas were approximately 75%. (Computations from figures presented in Commodity Trade Statistics, U.N., 1966, Vols. 24 and 27.)

[2] "Among the American states, as in the case in other major world areas, the chief book-producing countries tend to be also the chief book-importing states, and in some instances, the chief book-exporting states as well; since the social and economic factors which combine to support a significant domestic publishing trade create an active demand for [their] books from other countries." *Books in the Americas* (Washington, D.C.: OAS, 1960).

[3] See UNESCO working papers and reports on "Book Production and Distribution in Asia" (1966 and 1968); "Book Development in Africa" (1968); and Report No. 47, "Books for the Developing Countries" (1965); and No. 52, "Book Development in Asia" (1966).

See "Books in the Americas," *supra* note 2.

See U.S. Agency for International Development publication *Books for Developing Countries: A Guide for Enlisting Private Industry Assistance,* prepared by Franklin Book Programs, Inc., New York, 1969.

extensive studies on the topic. While it is difficult and misleading to overgeneralize conditions in the developing nations, there are several factors inhibiting development of indigenous publishing which exist in varying degrees among almost all of these countries.

Before coming to these specific social and economic factors, however, it is necessary to understand the difference between the needs of developing nations and the effective demand for books. In speaking of "needs" we are referring to the material required to achieve a particular educational or cultural goal. "Effective demands" is used here to indicate the available market support for producing the material. The needs of developing countries for published material are enormous. The effective demand for published material is limited.

## Productive Capacity

Turning first to the question of productive capability, there are certain basic social factors that determine the effective demand for books. For instance, attitudes toward the use of the written word, both as a general form of communications and specifically in educational systems, vary widely among the developing nations. In some of these countries there has never been a tradition, especially a popular tradition, of reading. Contributing to this problem are the multiplicity of languages (especially within national boundaries),[4] and very high illiteracy rates. All of these factors limit the number of effective consumers. And added to these problems is the factor of very low per capita incomes which would preclude a large commercial market even if other limitations were not involved.

Aside from the problem of lack of effective demand, there are additional economic factors inhibiting book production. To begin with, developing-country publishers are frequently faced with inadequate supplies of raw materials: paper, ink, adhesives, and binding material. This shortage problem is further complicated by irregularities in supply availability which, of course, makes rational planning difficult. The unavailability of capital goods, of funds for long-term investment and short-term operation, of skilled labor, and of managerial talent also hinders development of publishing industries. Further complicating the productive function are gross inadequacies in the distributive process. Poor transportation and communication systems,

[4] India, for example, has 13 principal languages in addition to English. See UNESCO Report No. 47, 1965, p. 15.

poor marketing techniques, and few wholesale or retail outlets are among these inadequacies.

There are also what might be termed "artificial" obstacles to book production in developing countries. These include the use of taxes (income, excise, and sales) to the detriment of authorship and investment, unusually high interest rates, high postal and freight charges, and laws that place publishing at a disadvantage by classifying it as a "craft" rather than an industry. Additionally, efforts to supply local needs through importation are often frustrated by high tariffs or quota restrictions and by complicated, time-consuming administrative procedures involving payments to foreign suppliers.

Faced with these inadequacies of supply and demand, indigenous publishing enterprises are often unable to achieve the kinds of specialization permitting higher degrees of efficiency with lower per-unit costs. Most publishers in developing countries operate "vertically integrated enterprises" which cover the full range of publishing-related activity from manufacturing to selling. Forced to operate with high unit costs, obsolete equipment and methods, and unskilled help to produce an end product priced for a limited market, publishing becomes a high-risk venture. This in turn encourages efforts to cut corners in saving costs, and further erodes already scarce credit sources.[5] The result of these factors is summed up in a UNESCO working paper for the "Books in the Promotion of Economic Development" meetings:

> As production costs are high, and the reading public limited, publishers are loathe to plunge into production of quality books. They concentrate on producing only such books as can bring assured returns.[6]

Under these circumstances, where survival is often in doubt, there is seldom any prospect for expansion of the industry.

## Creation and Needs of Developing Countries

Development of a publishing industry does not suffer alone from the factors enumerated. Inducement of the creation of copyrightable material, and the development of indigenous literature and art, are also inhibited. Authors and artists must be compensated for their creative efforts. If domestic publishing establishments cannot offer

[5] A side effect of this high risk factor is for owners of copyright, both domestic and foreign, to demand larger portions of royalty fee in advance of publication. This puts a further strain on the local publisher's already scarce operating funds.

[6] UNESCO, Report No. 17, "Book Development in Asia" (13 May 1966), p. 4.

sufficient rewards, authors and artists will go elsewhere—or, more likely will not be induced to exercise their talents in the first place.

Turning again to the needs of developing nations for written material, and recalling that one of the most frequently expressed needs is for educational works, it is presently true that the majority of the world's written textbook material emanates from authors and presses in the developed nations. Yet the issue is seldom over the international movement of copies of textbooks.[7] Since most developing nations desire to have educational works in local languages, translation factors become the primary concern. Aside from other economic and social problems previously cited, translation presents a few technical problems of its own. Most lacking are competent translators and editors who can take written material produced in a foreign language and present the information intelligently and accurately in their own languages and in a way meaningful in their own culture. Even if there were an adequate supply of competent translators and editors, there would still be the problem of manufacturing the translated works,[8] not the least of which is the lack of high-speed composing equipment for non-Roman alphabets and non-alphabetic languages.

It might well be recognized at this juncture, however, that the needs of developing nations suggest that a large potential market exists for indigenous publishing. Surely, if the local needs are to be met in any realistic way, local publishing ought to be the vehicle of supply. Publishers in developed countries often refer to their market for educational works as the backbone of the industry. Why hasn't this factor been significant in strengthening publishing industries in developing countries?

While there are several reasons why educational needs have not bolstered local publishing, a few will serve as illustrations. In developed countries, the largest purchasers of educational works are institutions (schools and libraries). In developing countries there are usually only a small number of such institutions (at least for a given language area) and inadequate budgets. It is not realistic to expect

[7] One source of possible friction concerning the importation of books is the category of reference books (dictionaries, encyclopedias, etc.). These works require a great investment in research, composition, etc. It is most unlikely that local publishers in developing countries have access to the necessary resources or markets for producing such works. Even translations present a formidable task. While reproduction of reference books in the original language is possible, authorizations to do so are not frequent since the original producer must rely on a worldwide market support. Unauthorized reprints would face very limited local markets and international markets would be protected against exports.

[8] It has been reported that in some instances where translation rights have already been acquired, publication has been delayed for economic reasons not related to the costs of copyright.

publishers to produce inexpensive materials adequate to serve the educational needs of their countries when they must operate under the adverse conditions already mentioned. Finally, educational programs or systems are not always organized in a manner that permits adequate planning of published material.[9]

Having briefly recalled the principle of copyright and the needs and problems of developing countries, the next step is to examine the role of copyright in relation to these needs and problems.

## Role of Copyright

One complaint often voiced from developing countries concerns the payment of royalties to foreign owners of needed copyrighted material. The governments of developing countries often cite the needs, academic and technical, of students for low-cost educational works. Publishers in these countries express the need for low-cost translation rights and less complicated administrative procedures in securing these rights.[10] The existence of these needs, which can readily be documented, does not support the conclusion that royalty payments are a significant factor in keeping book costs high in developing countries.

Curtis Benjamin, speaking recently in India and Singapore,[11] noted that in 1967, in the United States, a highly commercial market, the copyright costs (payments to owners of copyright) amounted to only one-tenth of the total cost of producing educational materials. It seems unlikely that the cost of copyright in developing nations would exceed this figure, especially since translation rights in noncommercial languages[12] are reportedly sold for nominal fees.[13] In most cases these

[9] Some educational requirements for a given language area are too small to allow economical production. More often, the difficulties lie in the manner in which decisions are made on the particular books that are to be used. Publishers who must second-guess the desires and tastes of school administrators bear additional financial burdens.

[10] Local publishers also complain of the difficulty in identifying copyright owners, particularly foreign owners.

[11] Mr. Benjamin, former President and Chairman of the Board at McGraw-Hill, Inc. participated in the AID-financed, Franklin-sponsored seminars for publishers in India and Singapore in March 1969.

[12] Languages other than the Scandinavian languages, English, Spanish, French, Italian, German, and Japanese.

[13] Translation rights for U.S. educational works into non-commercial languages are often sold at flat fees of $100 or at 5% of the U.S. list price. UNESCO Report No. 47 reports figures of 5 to 6 1/4% on paperbacks (page 15). This same report also notes that in many cases these royalty payments are subject to local taxes (page 12 and 17) which substantially reduces the actual amount remitted to the owners of copyright.

nominal fees barely cover the costs involved in transferring rights (researching titles, drawing up contracts, et cetera.) In those cases where rights are sought to reproduce a work in the original language, royalty rates run slightly higher, but would still represent a minor cost item in ordinary book production costs. In short, then, it seems highly unlikely that the reduction, or even the elimination, of royalty payments would result in lower prices for books. It can be demonstrated that the cost of copyright is not a significant factor in the overall cost of providing the desired material.[14]

## Conclusion

Reduction or elimination of the requirement to compensate owners for the use of their works is likely to have other adverse effects. An atmosphere which does not respect individual rights will hardly be conducive to healthy growth of an indigenous enterprise or to encourage the inflow of capital or technical assistance necessary to develop a flourishing local publishing industry.

Modern copyright laws and international copyright agreements have a positive effect in establishing an agreeable legal climate that helps indigenous authorship and publishing in the developing nations to prosper as the economic and social factors improve. Cooperation and reasonable accommodations not only promote the assistance necessary to improve social and economic conditions in the developing countries,[15] but it becomes important to indigenous authors and publishers as they begin to export their own works.

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[14] The reduction of royalty payments would alleviate the problems of ownership identification and most burdensome administrative procedures. Although elimination would solve these problems, it would create an atmosphere of bad will and unfairness that would work to the detriment of both the developing countries and their publishers. A more reasonable solution would be to devise a mechanism to facilitate identification and to simplify local administrative procedure.

[15] As is the case with industrial property, the transfer of intellectual property often necessitates the transfer of technical "know-how." Applied to books, this could mean that the transfer of translation or reprint rights would give the local publisher access to technical assistance in bringing out the local edition, or, more frequently, insuring that the local publisher gets the most current edition of the original. Just possessing a book to be translated or reprinted does not guarantee an accurate, low-cost local edition.

## STUDENT PAPERS

By making available student papers, students will receive an incentive and our readers will appreciate the evidence of scholarly development in the fields of interest. These papers are carefully reviewed by the Editorial Committee and other specialists, and helpful suggestions are made to the students as part of the educational function of *IDEA*. The Research Institute invites educational and research institutions to submit informative student manuscripts on the patent, trademark, copyright, and related systems.

# The Role of Discovery in Patent Litigation*

ALTON D. ROLLINS

SUMMARY

DISCOVERY PROCEEDINGS under the Federal Rules of Civil Procedure serve valuable purposes in patent suits. When properly employed, they can insure that the suit is conducted to an expeditious and just conclusion.

However, suitable safeguards are necessary to prevent these beneficial devices from being used as instruments of oppression and harass-

* This paper was prepared by the author while a third-year law student in partial fulfillment of the requirements for Advanced Topics in Patent Law, a course conducted by Professor L. James Harris in The National Law Center of The George Washington University.

ment which price potential litigants out of the courts by drastically increasing costs.

This paper explores both the benefits and the burdens of discovery devices, and suggests some methods by which the inconvenience and expense of protracted discovery proceedings can be equitably allocated between the parties.

## Scope and Purpose of This Paper

This paper is designed to present a broad but necessarily brief survey of the entire field of discovery as it is applied in patent litigation, and to explore somewhat more intensively a few selected areas of particular interest in the patent field.

Since patent litigation is essentially confined to federal courts, only proceedings under the federal rules will be treated. Citations of cases are selective rather than exhaustive because discovery is a field where precedent is particularly unreliable. As noted in the discussion which follows, whether, and on what conditions, discovery will be granted are matters within the sound discretion of the trial court.

Accordingly, the law of discovery is primarily developed in a rough-and-ready fashion during the give and take of a hearing on motions. Review of the decision of the trial court is generally limited to a determination as to whether the court abused its discretion, and with the result that only gross departures from the norm attract the attention of the appellate courts.

It is futile to attempt to catalog the decisions according to the type of subject matter treated, because it is self-evident that the factors which move the court to exercise its discretion in a particular manner have less to do with the subject matter of the question propounded than with the context in which the question is presented. The party who seeks discovery must show the court why it must be granted to serve the cause of justice in the particular case at hand, and he must demonstrate that the benefit of the discovery to him will outweigh the harm to the other party. Thus the factors which enter into the decision are not determined by the subject matter involved. Moreover, the factors which sway the court may not be articulated in the decisions. These factors cover the entire spectrum of the counsel's imagination and ingenuity. A question which may be inappropriate at one stage of the proceeding may become critically apt at a later stage when its relevance becomes clear.

Precedents are unreliable also because the entire concept of discov-

ery has undergone changes in recent years which, if not revolutionary, certainly represent striking examples of accelerated evolution. Rules of fixed application a few years ago are "irrelevant" in modern courtrooms, using the term "irrelevant" in both its traditional legal and contemporary social senses.

It can be safely said that the majority of federal courts today will be less concerned with the nature of the discovery sought than with the proponent's reasons why he must have the answer and the deponent's reasons why he refuses to answer. Obtaining a favorable ruling on the motion is less a matter of searching dusty lawbooks for an applicable rule than a matter of searching the case for reasons why your questions are posed in good faith and why they have a legitimate and substantial purpose in the setting of the case. A showing of good faith implies appropriate concern for the rights of the adversary.

Therefore the following discussion employs cases only as illustrations of types of subject matter. The focus is on the factors which tip the scales in the balance of equities.

## The Purpose of Discovery Proceedings

Concepts about the purpose of discovery proceedings have been broadened considerably in recent years. Under the common law, the emphasis of a legal proceeding was upon the trial. Issues were developed through extensive pleadings. Parties were neither competent nor compellable to testify for or against each other at trial. Equity sought to fill this gap in evidence by compelling a party by a Bill for Discovery to supply written sworn answers to interrogatories to satisfy a party's need to use an opponent's evidence against him.

The origins of discovery in equity produced certain limitations that have been difficult to erase.[1] Discovery could be had only of facts which pertained to the case of the party seeking discovery, and any attempt to pry into the adversary's case was regarded as an improper "fishing expedition." Some courts insisted that the facts had to be otherwise unavailable to the party seeking them. Because the purpose of discovery was viewed primarily as a safeguard against a possible lack of evidence at the trial, only facts or documents which would be admissible as evidence could be reached. Finally, discovery could be had only against an adverse party.

The reform movement in the nineteenth century found values in

[1] James, *Civil Procedure,* p. 181.

discovery beyond the need to find and preserve evidence for trial.[2] They substituted statutory schemes for the separate suit in equity (Bill for Discovery). The statutes provided for written interrogatories, production of documents, and taking the depositions of any person, whether or not a party. These devices have been incorporated into most modern schemes. But certain drawbacks were retained from antiquity, either expressly or by conservative construction, such as the views that depositions were only for the purpose of preserving testimony for trial, and that the same kind of showings of necessity were required under the statutes as under the Bill for Discovery. In short, the scope of discovery under the codes was about the same as under equity.

The modern Federal Rules of Civil Procedure have greatly broadened the role of discovery. The primary purposes of modern discovery devices are to avoid litigation altogether or to simplify it where it cannot be avoided.

Discovery tends to simplify litigation by narrowing the issues, i.e., by revealing points on which there is no serious disagreement and by isolating the critical issues. It tends to insure that all relevant evidence will be considered and analyzed prior to trial. The evidence obtained during discovery is often fresher and more spontaneous than the evidence presented at trial. By avoiding the presentation of "surprise" evidence during the trial, the trial flows more smoothly and expeditiously.

All of these factors tend to insure that the parties are in the best possible position to present their cases promptly and accurately during the trial. Meritless issues are weeded out, and the trial can be focused upon the real points of contention. Since the litigants have more realistic knowledge of the strengths and weaknesses of their case and that of their opponents, the chances of settlement before trial are considerably increased. Since the parties have a more complete understanding of the evidence, the trial is more likely to culminate in a just decision.

The advantages of pretrial discovery in insuring an expeditious and fairer trial on the merits of a case have resulted in a shift away from the sporting theory of justice which prevailed at an earlier day. As courts become more crowded and the complexity and costliness of suits increase, the value of liberal pretrial discovery techniques becomes even greater and clearer.

There are many reasons why discovery is particularly appropriate

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[2] Ragland, *Discovery Before Trial* (1932), pp. 16-26.

for patent litigation. In the first place, patent suits are extremely expensive and time-consuming. In *Texas Co.* v. *Globe Oil & Refining Co.*,[3] the statutory costs alone amounted to $64,068.53. The plaintiff's costs in the *Graver* v. *Linde* litigation from 1945 to 1950 were stated as $687,226.17,[4] and that figure represents only a small portion of the time and expense of that litigation.[5] The average minimum cost of conducting a patent suit to a contested judgment has been estimated to be about $50,000 for each side, or $100,000 for both sides in a two-party suit, with the litigants in major suits sometimes spending more than a million dollars each.[6]

Patent suits are frequently extremely complex. They inevitably turn on the determination of complex scientific fact, and by their very nature they often present the most advanced and complicated facets of their particular technology. For non-technical courts to cope with such subjects, it is imperative that the litigants simplify and clarify the issues to the fullest extent possible. The accuracy and fairness of the court's decision is proportional to the accuracy and fairness of the presentation of the issues.

In addition, there is a compelling public interest in the outcome of patent suits. It is generally believed that patents when properly granted and used "promote the progress of science and useful arts" in accordance with the constitutional purpose. This is the fundamental premise on which the patent system is based. The anticompetitive effects of the patent, which are short-term and localized, are believed to be outweighed by the long-term and generalized benefits to the system as a whole. But if the balance is disturbed so that an invalid patent is wrongly enforced, or a competing device is suppressed because it is wrongly thought to be an infringement, then the long-term benefits on the system as a whole may not counterbalance the anticompetitive effects of the monopoly. If a court mistakenly enforces a patent which does not meet the requirements of the Patent Act, it confers an *unearned* monopoly upon the patentee, that is, a monopoly which is not the fair exchange for disclosure of the invention, but a monopoly which throttles competition without the counterbalancing benefits which warrant a valid grant. Moreover, the high cost of litigation is ultimately passed along to the consuming public.[7]

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[3] 114 F. Supp. 144 (N. Ill. 1953).

[4] 282 F.2d 653 (7th Cir. 1960).

[5] *Ibid.*, 345 F.2d 409, 145 *USPQ* 240 (7th Cir. 1965).

[6] Gorn, "Economic Value of Patents," *Encyclopedia of Patent Practice and Invention Management.*

[7] Compare the court's strong discussion of the public interest in seeing that the invalid patent is not enforced in Scott Paper Co. v. Marcalus Manufacturing Co., 326 U.S. 249, 67 *USPQ* 193 (1945).

These factors give the public a strong interest in seeing that the patent system operates as it is intended to do. The courts accordingly should keep in mind that the proceedings are not strictly adversarial, and that the public policy inherent in the system must be adequately safeguarded. In few fields is there a greater interest in insuring a just and speedy result. Accordingly, discovery devices which help to insure a proper result serve a purpose in the patent field beyond merely insuring a just result to the parties immediately involved.

## Means Available for Discovery

### *Depositions and Interrogatories*

Depositions and interrogatories are the only means of discovery from a witness who is not a party to the litigation. An oral deposition is a transcribed examination under oath. The form is generally the same as an examination on the witness stand. Because it requires the witness to answer immediately, there is no time for reflection or evasiveness. The questions can be framed as the examination proceeds, allowing the questioner to explore new avenues as they open up during the examination. For these reasons, the oral deposition is the most popular and flexible discovery device.

The primary drawback of the oral deposition is its expense. Since the examination is spontaneous, the deponent is limited to his present knowledge and recollection, whereas an answer to a written interrogatory may require that the deponent go to reasonable trouble to acquire the knowledge necessary to answer the question.

The deposition may be taken by written interrogatories under Rule 31. Written questions are submitted and a designated officer propounds the questions and records the answers. This method is obviously far more cumbersome than the oral deposition and is far less flexible. It is somewhat less expensive, but it is still costly enough to make it considerably less popular than the oral deposition.

The cheapest form of discovery is the written interrogatory. This is simply a set of questions which is served upon the deponent, who must reply to them within a given time. Written interrogatories may be served on an adverse party without leave of the court after ten days from the date the action is commenced. Within the ten-day period, interrogatories require the permission of the court. Interrogatories must be answered within 15 days unless the court has extended the time for response or the party has filed written objections to them.

The number of interrogatories is unlimited "except as justice requires to protect the party from annoyance, expense, embarrassment, or oppression" (Rule 33). Aside from its low cost, the written interrogatory is useful because it is not limited to the deponent's present knowledge or recollection. The deponent can be required to do a reasonable amount of investigation to acquire the knowledge necessary to answer,[8] but he will not be required to undertake unreasonable research to prepare his opponent's case.

The primary disadvantage of the interrogatory is that the answers are not spontaneous, but they are carefully framed, usually with the benefit of counsel. The party interrogated may be a corporation, in which case the corporation may choose the person to supply the answer.[9]

*Discovery of Documents and Tangible Things*

Under Rule 34, a party showing good cause may move that the court order the opposing party to produce and permit the inspection, copying, or photographing of any designated documents or other tangible things in his possession, custody, or control, which are not privileged and which constitute or contain evidence relating to any matters within the scope of permissible examination. The court may order any party to permit another party to enter his property for purposes of inspection.

As mentioned, the rule requires a showing of good cause to warrant discovery of documents and tangible things. A court order must be obtained before the deponent is under any duty to produce the desired material. This differs from the depositions and interrogatories which may be served without the aid of the court, and their propriety does not come into issue until objections have been made to them. For this reason, attempts have been made to obtain disclosures of documents by framing interrogatories which require detailed descriptions of written documents or other physical evidence. It is now fairly well settled that Rule 34 provides the exclusive method for reaching such documents and physical things, and the courts will not allow a party to by-pass the safeguard of good cause by using interrogatories which serve the same purpose but do not require court approval.[10]

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[8] 4 Moore, *Federal Practice*, §§ 33.20 and 33.26 (2nd ed. 1963).

[9] Holland v. Minneapolis-Honeywell Regulator Co., 28 FRD 595 (D.C. 1961).

[10] James, *op. cit. supra* note 1 at 193-194.

*Request for Admission of Facts or Genuineness of Documents*

Rule 36 permits service of a written request for the admission of the truth of any relevant matters of fact set forth in the request, or of the genuineness of any relevant documents described in and exhibited with the request. The admission or authentication is deemed made unless the party within ten days returns either (1) a sworn denial or detailed reasons why he is unable to admit or deny the facts, or (2) written objections on the ground of privilege, irrelevancy, or other proper objection. Admissions are for the purpose of the pending action only and may not be used for any other purpose or in any other proceeding against him.

A denial or refusal to answer without good reason may result in the court directing the recalcitrant party to reimburse the reasonable expenses incurred in proving the matter, including reasonable attorney's fees.

*Physical or Mental Examinations*

Where the physical or mental condition of a party is in controversy, the court may direct him under Rule 35 to submit to an examination upon a showing of good cause. This facet of discovery has found little use in patent litigation.

## Use and Scope of Modern Discovery

Modern discovery is used to perform numerous functions, and the function to be performed determines to some extent the scope of discovery which is permissible. If the purpose of the discovery proceeding is merely to preserve evidence for trial, then the factors to be considered may be quite different from those which are relevant if the purpose is to obtain investigatory material relating to the case.

Written or oral depositions or interrogatories are often used to preserve testimony for trial. Under Rule 26 (d), depositions may be used for the purpose of contradicting or impeaching the deponent when he testifies at trial. The deposition of a party may be used by an adverse party for any purpose (e.g. admissions of a party, admissions against interest, et cetera). Perhaps the most important is the use of the deposition when the deponent is unavailable at the time of trial, and the rule adopts a very liberal test of unavailability. Witnesses are

unavailable if they are dead at the time of trial, or if they are (1) at a greater distance than 100 miles from the place of the trial or hearing, or out of the United States, unless the absence was procured by the party offering the deposition, (2) unable to attend the trial or hearing because of age, sickness, infirmity, or imprisonment, (3) not susceptible to subpoena, or (5) unavailable in that such exceptional circumstances exist as to override the importance of oral testimony in open court.

In short, the number of situations in which out-of-court depositions can be used instead of testimony in court is large enough that there is a reasonable likelihood that the testimony taken at the deposition will be presented at trial. Therefore it is critical that the testimony be placed in proper perspective by proper cross-examination at the time the deposition is taken. The deponent should be represented by counsel, and the cross-examination should be taken with the thought in mind that there may be no further opportunity to clarify or correct misleading testimony before or at the trial.[11]

Where the purpose of the deposition is merely to preserve a witness's testimony for the trial, objections to the testimony on the ground of inadmissibility at trial are most likely to succeed. But where the discovery serves other purposes, such as investigation into the case of either party, the scope of discovery is not limited to admissible evidence, but it extends to all relevant evidence. It extends to the case of either party. "No longer can the time honored cry of 'fishing expedition' serve to preclude a party from inquiring into the facts underlying his opponent's case."[12] By the majority rule, a party may also discover facts which he may be able to ascertain in other ways, if the reason for getting it from the other party outweighs the burden to that party.[13]

Moreover, the test of relevance is not the test of relevance which would be used at trial, but it is *relevance to the subject matter* which is the test, and subject matter is broader than the precise issues presented by the pleadings.[14] Under Rule 26 (d), ". . . it is not ground for objection that the testimony will be inadmissible at the trial if the testimony sought appears reasonably calculated to lead to the discovery of admissible evidence."

Since discovery is not limited to evidence which is admissible at

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[11] See "Dramatization of the Discovery Deposition of an Inventor by an Attorney for an Accused Infringer," *1968 Patent Law Annual,* pp. 173-215.

[12] Hickman v. Taylor, 329 U.S. (1947), p. 495.

[13] Wright, *The Law of Federal Courts* (1963), p. 309.

[14] Kaiser-Fraser Corp. v. Otis & Co., 11 FRD 50 (S. N.Y. 1951).

trial, limitations which have grown out of the hearsay rule should not be controlling today.[15] Similarly, the opinion rule should not be a valid objection where the opinion would meet the test of relevancy to the subject matter. Of course, the usual exclusionary privileges which are recognized at law because they promote favored relational interests should be equally applicable to discovery proceedings. The policy which grants the privilege at trial should override the change in form of the proceeding.

## Methods for Preventing Abuse of Discovery

The general plan of the federal rules is to provide for extremely broad discovery, but to give the court great discretion and flexibility to regulate proceedings and curb abuses.[16] Any party may move for a protective order. Upon good cause, orders may be granted to limit the scope of the examination to certain designated matters, to protect the discovered material from unnecessary publicity, to change the time and place of depositions, to limit depositions to written interrogatories, or even to prohibit the taking of depositions altogether. The court may give any order "which justice requires to protect the party from annoyance, embarrassment, or oppression."[17]

In short, the plan of federal discovery is to allow the investigation to reach any information which is relevant to the subject matter of the litigation, and to determine the permissibility of particular discovery not on mechanical rules of pleading or evidence, but on the pragmatic consideration of weighing the relative benefit or harm to the parties, the interests of justice, and any other practical and equitable considerations which may be present in the case, such as harm to third parties or the public. They largely carry into practice the observation of Justice Cardozo that:

> The law of discovery has been invested at times with unnecessary mystery. There are few fields where consideration of practical convenience should play a larger role.[18]

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[15] Moore, *op. cit. supra* note 18 at § 26.01 [7].

[16] Wright, *op. cit. supra* note 13 at 320; Moore, *op. cit. supra* note 8 at §30.04; Fed. R. Civ. P. 30.

[17] Fed. R. Civ. P. 30 (d).

[18] Sinclair Refining Co. v. Jenkens Petroleum Process Co., 289 U.S. 689, 17 *USPQ* 522 (1933).

## Areas of Discovery of Interest in Patent Litigation

There are several areas where discovery proceedings are particularly useful in patent cases.

### *The "Opinions, Conclusions, or Contentions" Rule*

As noted earlier, a limitation of early discovery proceedings was that only admissible evidence could be obtained. Accordingly, discovery was largely limited to facts, and one aspect of this limitation was that interrogatories which called for an opinion, conclusion, or contention of a non-expert witness were held to be improper. The nature of patent litigation is such that many of the vital issues of the litigation were foreclosed from discovery by the rule.

Older decisions are replete with instances where courts have refused to require parties to answer interrogatories which called for opinions. Many of these interrogatories sought to require the patentee to construe the claims of his patent. Interrogatories which were disallowed include those which require the patentee to identify the respective claims applicable to the defendant's installation,[19] to state whether particular tools are of the "general type shown and described in his patents,"[20] to compare his patent claims with his own or defendant's devices,[21] to compare his patent with his opponent's patent,[22] to give his opinion as to which figure in the patent the defendant's devices are most like,[23] to state what the patentee asserts as new and patentable in each claim of his patents,[24] to state the precise difference between the inventions of several patents where double patenting was alleged,[25] to state what acts of defendants were alleged to be infringements,[26] to state how the claims are broader than the

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[19] Babcock & Wilcox Co. v. North Carolina Pulp Co., 25 F. Supp. 596 (Del. 1938).

[20] Stanley Works v. C. S. Mersick Co., 1 F.R. Serv. 33.313 (Conn. 1939).

[21] Lanova Corp. v. National Supply Co., 29 F. Supp. 119, 42 *USPQ* 625 (W. Pa. 1939); Carter Bros. v. Cannon, 2 FRD 174 (E. Tenn. 1941); Hoak v. Empire Steel Corp., 5 FRD 330 (N. Ohio 1946); Builders Ornamental Iron Co. v. Morrill, 10 FRD 616 (Colo. 1950).

[22] Cases cited Moore, *op. cit. supra* note 8, at 2347.

[23] Lanova Corp. v. National Supply Co., *supra* note 21.

[24] E. I. du Pont de Nemours & Co. v. Byrnes, 1 FRD 34, 44 *USPQ* 13 (S. N.Y. 1939).

[25] *Ibid.*

[26] *Supra* note 19.

disclosure,[27] or to state the results of a chemical analysis by the plaintiff of the product which was "alleged" to infringe[28] (calling for an opinion as to infringement).

Some courts took a different view from the first.[29] In *Schwartz* v. *Howard Hosiery Co.*,[30] the plaintiff was required to answer an interrogatory as to whether a patent drawing correctly illustrated the invention. Judge Kirkpatrick stated that one of the purposes of the rules is to obtain admissions and thus narrow the issues for trial, avoiding unnecessary testimony and waste of time in preparation.

> This answers the objections that the interrogatory calls for an "opinion" and that it goes to a matter equally within the knowledge of the interrogating party . . . . The plaintiff's objections to answering this interrogatory seem to me to be the last word in technicality and entirely out of touch with the spirit of the new rules.

In *Pierce* v. *Submarine Signal Co.*,[31] the defendant was required to answer interrogatories calling for the description of its apparatus which it considered to be most nearly like the patented invention. Interrogatories have been allowed which require particularization of various allegations of the pleadings, and this device has largely superseded the old "Bill of Particulars." Defendants have been required to state the basis for defenses pleaded,[32] and a plaintiff was required to state the claims of each of his patents which was infringed, and to identify the infringing products and processes and correlate them to the claims of the patent.[33]

Courts today are likely to apply liberal construction of the purposes of discovery, and to avoid the mechanical application of "rules of law" and "rules of evidence" by focusing their attention on the practical aspects of the issues before them. The new Federal Rules do not limit discovery to "facts." *If the answer serves some legitimate and substantial purpose,* either in leading to evidence or narrowing the issues, and it would not unduly burden or prejudice the interrogated party to

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[27] Hercules Powder Co. v. Rohm & Haas Co., 3 FRD 328, 66 *USPQ* 138 (Del. 1944).

[28] B. B. Chemical Co. v. Cataract Chemical Co., 25 F. Supp. 472, 39 *USPQ* 339 (W. N.Y. 1938).

[29] Moore, *op. cit. supra* note 8 at 2350.

[30] 27 F. Supp. 443 (E. Pa. 1939).

[31] 25 F. Supp. 862 (Mass. 1939).

[32] McInerney v. Wm. P. McDonald Construction Co., 28 F. Supp. 557 (E. N.Y. 1939).

[33] *Supra* note 24.

answer it, then it should be allowed.[34] This test is called the "substantial purpose" test of Professor Moore.

Some courts have candidly rejected the rule that interrogatories calling for opinions, conclusions, or contentions are objectionable.[35] Others have gradually adopted the *substantial purpose* test,[36] and even the objection that the question "calls for construction of a patent" is no longer completely dependable.[37] In the *Meese* case, after pointing out that the interrogatory "whether a part of defendant's product infringes upon plaintiff's patented product" obviously called for an opinion involving a point of law, the court stated that

> The prohibition against interrogatories requesting a legal opinion is rooted . . . in the fact that parties generally are unable . . . to express such an opinion . . . . In patent cases, however, the court can think of no one *more qualified* than the inventors to express opinion as to what constitutes theft of their inventiveness.

Decisions stress that the allowance of interrogatories involves a balancing of the usefulness of the information sought against the burden of obtaining it. If the answers serve some substantial purpose in the litigation and they are not unduly burdensome, then even interrogatories which require detailed tests and express legal opinions must be answered.[38] To the extent that the old rule that interrogatories calling for legal opinions are improper is based on the premise that they require a layman to answer patent questions and thus bind his company in legal matters, one court has noted that the premise is artificial because a president of a corporation will not answer technical interrogatories without the assistance of counsel, and that such rules should not be applied without reference to the realities of the case.[39]

Thus the courts today will probably allow or disallow discovery on grounds other than the mechanical application of the opinion rule. The proponent of an interrogatory should clearly establish the relevance of the question by showing the purpose for it. If the interrogatory is broad in scope, or if it casts a substantial burden on the deponent, the necessity for the inquiry should be clearly shown. The interrogato-

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[34] Moore, *op. cit. supra* note 8 at 2355.

[35] Taylor v. Sound Steamship Lines Inc., 100 F. Supp. 388 (Conn. 1951).

[36] Moore, *op. cit. supra* note 8, at 2364.

[37] Meese v. Eaton Mfg. Co., 35 FRD 162 (N. Ohio 1964); Carrier Mfg. Co. v. Rex Chainbelt, Inc., 281 F. Supp. 717 (E. Wis. 1968).

[38] Federal Cartridge Corp. v. Olin Mathieson Chemical Corp., 152 *USPQ* 497 (Minn. 1967).

[39] Microtron Corp. v. Minnesota Mining & Mfg. Co., 155 *USPQ* 497 (N.J. 1967).

ry should be presented at the proper time. An interrogatory which would be allowed at a proper time may be disallowed if it is prematurely presented. For example, interrogatories as to sales volume are ordinarily disallowed until infringement and validity have been established, but they may be timely at an earlier stage if a legitimate purpose is shown. Such interrogatories have been allowed at an early stage where the commercial success of the invention is in controversy,[40] or even where the plaintiff establishes that he needs defendant's sales information in order to determine whether it is worthwhile for him to continue the action.[41]

Thus the court has great discretion in allowing or denying discovery, and this discretion must be exercised in a rough-and-ready fashion at a hearing on motions. The success or failure of the motion depends upon the care which is taken to show a legitimate reason why the information is relevant and necessary, and that this reason is sufficient to outweigh any burden on the deponent. Where the burden on the deponent is heavy or expensive, the court may condition the allowance of the interrogatory upon reasonable conditions,[42] and by agreeing to such conditions, the proponent should be able to obtain any information which he reasonably needs to prepare his case.

*Discovery of Trade Secrets*

Trade secrets form an area in which the balancing of interests is particularly delicate. Rule 30 (b) expressly provides that the court may for good cause provide orders for the protection of parties and deponents, and these may include orders that secret processes, developments, or research need not be disclosed. This rule deals with oral depositions, but its provisions are expressly incorporated into Rules 31 (d) (Depositions of Witnesses upon Written Interrogatories) and 33 (Interrogatories to Parties). Under Rule 34, discovery of documents or tangible things must always be supported by a showing of good cause, and the protections of Rule 30 (b) are expressly incorporated into the rule.

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[40] Clevite Corp. v. Beckman Instruments, Inc., 151 *USPQ* 369 (S. Calif. 1966).

[41] Wolverine Shoe & Tanning Corp. v. Aldens, Inc., 142 *USPQ* 319 (W. Mich. 1964).

[42] Where defendant sought a deposition from the expert witness that plaintiff retained to examine defendant's equipment, permission was conditioned on defendant paying half of the fees which the expert had charged plaintiff, as well as half the charge for his time at the deposition, Dresser Industries, Inc. v. Doyle, 150 *USPQ* 776 (N. Ill. 1966).

Where a trade secret is involved, a patentee may find it impossible to obtain proof of infringement without in some manner obtaining access to the secret. If the patented invention is a machine, manufacture, or composition of matter, then an inspection of the marketed product will generally be adequate to establish infringement. But if the patented invention is a process, or if the infringement consists of producing the patented products and storing them for sale after the patent expires, the infringement is frequently conducted in secret. Sometimes the process employed may leave its mark on the product itself, as when the infringement of a process may be established by the types of impurities found in a chemical product, but it is more frequent that the process used in its manufacture cannot be proved by an examination of the product itself. Therefore the patent can be evaded if the infringement is conducted surreptitiously and discovery of the "trade secret" is denied.

On the other hand, discovery of a secret process inherently jeopardizes the secret and results in a risk of unauthorized disclosures. If discovery of secret information is made too easy, then "strike suits" may be filed just to obtain access to a competitor's secrets. A competitor must not be allowed to gain information about trade secrets by filing a colorable suit and using it to gain access to sensitive material. On the other hand, a patentee should not be foreclosed from enforcing his patent merely because the infringer secretly conducts his work.

Since infringement can be proven without access to secret data in most cases, legitimate concern for trade secrets demands that all reasonable avenues of proof be exhausted before attempting to gain access to the alleged infringer's secret data. Self-help is one possibility but a patentee plainly cannot be required to resort to such clearly criminal conduct as burglary or theft to gain the necessary information. Bribery, wire-tapping, or other forms of industrial espionage are somewhat less extreme, but they also subject the patentee to an unreasonable risk of civil or criminal liability,[43] and they do not represent standards of conduct which the community should encourage. Therefore it is necessary that discovery of trade secrets in some form must be available to provide a reasonable alternative to disfavored conduct while giving due regard to the protection of the trade secret property.

It follows that trade secrets are not absolutely privileged against dis-

[43] See Fulwider, "Discovery and Proof of Infringement in Patent Cases," *1966 Patent Law Annual,* pp. 99-119, at 101, for a discussion of a case where a judgment on a counterclaim for invasion of privacy and unfair competition for $50,000, plus about $20,000 in court costs, was rendered against a plaintiff.

covery,[44] but the court will exercise its discretion to avoid unnecessary disclosure of secret information, particularly where the action is between competitors. In *Paul* v. *Sinnott*,[45] the patentee filed affidavits requesting that defendant be required to permit inspection, to operate their apparatus for plaintiff's inspectors, to allow motion pictures to be filmed, to permit measurements and drawings, and to open their engineering drawings, plans, and specifications to plaintiff. The defendant alleged that such discovery would disclose secret information, and even though they did not substantiate their allegations, the court conditioned discovery upon the conditions that only certain named individuals be given access if they gave assurances under oath that the information obtained would not be divulged except during the judicial proceedings as the court directed.

While there is no definite privilege against the disclosure of trade secrets, it is the policy of the law to protect them from unnecessary and unjustified invasion,[46] and good cause must be shown for their discovery. They must of course be necessary and relevant to the case, and the burden of showing relevancy and necessity rests on the party seeking disclosure.[47] Discovery must be limited in scope to that which is clearly necessary, and a blanket request for discovery which touches the area of trade secrets will be denied.[48] The material sought must be clearly material and necessary,[49] and the proponent must have no reasonable alternative to the requested discovery. Disclosure will be compelled only when the court is convinced that it is clear that the plaintiff will be definitely deprived of proper and necessary means to prove his case.[50] The holder of the secret may offer alternative information, and it must be shown that the alternative is inadequate before the trade secrets are again requested.

Courts are particularly cautious about ordering discovery of trade secrets to a competitor. Where the party seeking discovery is not a competitor, the courts seem more likely to allow access to trade secrets, because a noncompetitor is less likely to make use of the disclosed material.

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[44] V. D. Anderson Co. v. Helena Cotton Oil Co., 100 *USPQ* 413 (E. Ark. 1954); Hartley Pen Co. v. U.S. District Court, 287 F.2d 324, 129 *USPQ* 152 (9th Cir. 1961); Struthers Scientific Corp. v. General Foods Corp., 45 FRD 75, 159 *USPQ* 565 (S. Texas 1968).

[45] 217 F. Supp. 84, 137 *USPQ* 443 (W. Pa. 1963).

[46] Hartley Pen Case, *supra* note 44.

[47] *Ibid.*

[48] Rohm and Haas case, *supra* note 27.

[49] Floridin Co. v. Attapulgus Clay Co., 41 *USPQ* 129 (Del. 1939).

[50] Cities Service Oil Co. v. Celanese Corp. of America, 10 FRD 458, 86 *USPQ* 439 (Del. 1950).

In the *Cities Service* case,[51] a suit was brought for infringement of two patents claiming processes for controlled oxidation of petroleum hydrocarbons. The patentee sought an order permitting inspection, measurement, readings, and photographs of all equipment used by defendant in the portion of the plant where the process was carried out; an order compelling defendant to permit the plaintiff to examine and copy all blueprints, plans, flow sheets and records with respect to the construction and operation of defendant's process; and various other information.

Defendant objected because there had been no good cause shown, and because the discovery would result in disclosure of trade secrets. He argued that the request was too general and did not specify the information sought with sufficient precision, and that the granting of the motion would be unduly burdensome because it would require a serious interruption of the plant to supervise the inspection. Plaintiff countered that the inspection could be accomplished in ten days to two weeks without interrupting operations to any degree. The defendant coupled with his objections an offer to provide the plaintiff with a flow sheet and a full description of its process.

The plaintiff modified his request so that inspection would be limited to the portion of the plant where the oxidation process was actually being conducted, so that trade secrets in other parts of the plant would not be jeopardized. But defendant pointed out that trade secrets were also involved in the oxidation process.

After pointing out that there was no absolute right to refuse to divulge information upon the sole ground that the information will necessarily involve the disclosure of trade secrets, the court indicated that some progress could be made toward striking a balance between the conflicting policies of qualified privilege against disclosure of trade secrets and full discovery by having the defendant make available the information which it had offered to furnish. The court deferred final action on the motion until that information could be evaluated. If the information proved inadequate, the court would consider further steps, among which might be the appointment of an impartial expert or special master to assist the court by examining, under a pledge of secrecy, the matter of the trade secrets and the burden which would be imposed on the defendant by the granting of the motion. The court[52] quoted from Wigmore[53] a portion pointing out that

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[51] *Ibid.*

[52] *Ibid.*

[53] 8 *Wigmore on Evidence,* § 2212 (3rd. ed.).

> . . . the occasion for demanding such a privilege arises usually in actions where the party claiming it is one charged with infringing the rights of another by wrongful competition in business, and the existence of the fraud can be proved only by investigating the claimant's methods of business; in such cases, it might amount practically to a legal sanction of the wrong if the court conceded to the alleged wrongdoer the privilege of keeping his doings secret from judicial investigation. No privilege at all should there be conceded, although as much privacy as possible might be preserved by compeling disclosure no farther than to the judge himself, or to his delegated auditor . . . .

In *Niks* v. *Marinette Paper Co.*,[54] the plaintiff moved for inspection of a physical plant and blueprints. Defendants had furnished one print of a slicing assembly and one print of a suction breast roll assembly which were alleged to infringe. Attorneys for plaintiff urged that the prints were incomplete, indistinct, inadequate, and lacking in the necessary descriptive notations. Defendants contended that the prints furnished a complete, detailed, disclosure.

The court confessed that it could not determine whether the prints were insufficient. In the interests of practicality and in view of the broad and liberal treatment to be accorded to the discovery provisions of the rules, the court granted the request to produce and permit the inspection, copying, and photographing of certain drawings and blueprints specified in the motion, but it denied the request to enter upon the plant premises because the need for such relief was premature. The court indicated that it would exercise great caution where the need for relief is not clear or the information has not been shown to be otherwise unavailable.

In *International Nickel Co., Inc.* v. *Ford Motor Co.*, [55] interrogatories were objected to because the answers dealt with a secret process. Plaintiff had requested analysis of molten metal at various stages in the production of crankshafts. He had alleged that the information was not secret because it had been disclosed to the public by certain documents. The court observed that if such were the case, it did not understand the necessity for obtaining the information by discovery. It denied the requested discovery because it felt that the need for the secret information could best be determined at trial in view of the established facts.

In *Great Lakes Carbon Corp.* v. *Continental Oil Co.*,[56] a coking operation was alleged to be an infringement. Defendant had voluntari-

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[54] 11 FRD 384, 90 USPQ 301 (N. N.Y. 1951).
[55] 15 FRD 392, 101 *USPQ* 107 (S. N.Y. 1954).
[56] 23 FRD 33, 120 *USPQ* 28 (W. La. 1958).

ly opened its plant to the plaintiff so that its engineers, attorneys, and experts could observe how the coke was made. The record showed that defendants, while denying infringement, had "voluntarily and without the necessity of a motion or order, honored every informal request for discovery which the plaintiff has made, except as to the production of the patent application which is the subject matter of the motion now before the court."

The motion was for production of a patent application claiming a patentable improvement in the process of producing petroleum coke. Defendants asserted that the improvement was embodied in the process opened for inspection to plaintiff. Plaintiff argued that it must have the application to understand the process fully, while defendants asserted that the motion was merely a subterfuge to get at the application.

The court pointed out that infringement was charged against the process, which in no way depended on what was in the application; that the litigants were fierce competitors; and that the best way for plaintiff to find out what the practice was in the plant was the method being used by them, i.e., a 24-hour vigil at the plant. The legitimate interest of the defendant in the protection of its patent application must be balanced with the right of the plaintiff to discover the full truth. Discovery should be ordered where the issues cannot be fairly adjudicated without it, but the court was not convinced that the probative value of the information was great enough to justify an invasion of Continental's right to secrecy. It denied the motion without closing the door to production of the application if it became necessary at a later time.

In *Hartley Pen Co.* v. *U. S. District Court*,[57] the district court had granted a motion to inspect and copy documents relating to trade secrets within petitioner's control. Petitioner urged that the court had abused its descretion. One of the defendants had maintained that the information was necessary to its defense of the action, but the appellate court found that they had failed to establish the relevance and necessity of the trade secret sought. The court noted that the disclosure orders were without any protective limitations although the petitioner had repeatedly asked for protective provisions. Under these circumstances, the orders constituted an abuse of discretion on the part of the district court.

The cited cases clearly illustrate that courts will exercise considerable caution in requiring disclosure of trade secrets, and high stand-

[57] *Supra* note 44.

ards of relevance and necessity are imposed on motions touching on trade secrets. The scope of the order will be carefully scrutinized, and a failure to include proper precautions protecting the trade secrets is reversible error. But in the final analysis, disclosure will be ordered if the secrets are relevant and necessary to the case, and the information cannot reasonably be obtained by alternative means.

The issue of good faith clearly underlies many of the decisions. In the *Great Lakes* case, the court was evidently impressed with the defendant's actions in allowing the plaintiff access to their installations. In *Cities Service* and *Niks,* the objections to the motions were wisely accompanied by reasonable alternative proposals.

Courts will not allow the trade secret defense to be used as a shield against legitimate investigation for infringement. Therefore the defendant should show his good faith by proposing reasonable alternatives. The proponent should avoid the appearance of either overreaching (using the motion as a subterfuge to gain the information) or merely avoiding the work of obtaining the information from other available sources. Above all, the proponent must be willing to cooperate in framing a proper protective order,[58] and the deponent stands the best chance of protecting his secrets by proposing a reasonable alternative.

It should also be kept in mind that the court will almost certainly impose conditions on the order for the protection of the trade secrets. It is entirely possible that these conditions may make discovery more of a burden than a boon. An oath of secrecy will generally be imposed upon one gaining access to secret information, and where competitors are dealing in closely competitive areas, access to trade secrets raises some risk that work in those areas may come under suspicion as violating the court order or misappropriating the trade secrets. For this reason, it is advisable when dealing with a highly competitive area to limit access to independent experts or counsel.

Of course, any court proceeding involving trade secrets will generally be held *in camera,* and all reasonable precautions will be taken to prevent unauthorized publication of the secrets.

### *The Attorney-Client Privilege and the Work Product Rule*

The leading case in federal discovery, *Hickman* v. *Taylor,*[59] deals with the work product rule. In that case, plaintiff sought to gain access

[58] See example given by Fulwider, *supra* note 43, at pages 117-119.
[59] 329 U.S. 495 (1947).

to statements of witnesses which had been taken by defendant's agents. The court held that the matters sought were not privileged within the attorney-client privilege, and thus they were not altogether outside the reach of discovery. But the court created a new *qualified privilege,* which has come to be known as the "work product of the lawyer."

Work product deals with the material gathered by a lawyer in his preparation of a case. It clearly covers his own notes, memoranda, or anything else which reflects his "mental impressions, conclusions, opinion, or legal theories," including written or oral statements which he takes from witnesses. Beyond these is a gray area where decisions conflict and policies are not clear.[60]

While the need to protect trade secrets arises out of a concern for property, the "work product" privilege arises out of the nature of the the advisory system of justice. If the system is to work effectively, the lawyer handling the case must have wide latitude in developing his approach to the case and the strategy he will employ. He must be able to work on the case without fear of disclosure during the early stages of his preparation, and above all he must not be converted to a witness against his own cause. But all that is necessary to meet these needs is protection of the product of the lawyer's work *as a lawyer* and the work done by his professional associates.

The work product privilege is a qualified one, and work product may be discovered if it contains relevant and non-privileged facts, the facts contained are essential to the preparation of the case, and there are no reasonable alternative means available for getting the information.[61] Therefore good cause must be shown before discovery of work product will be granted, and "good cause" means more than mere relevancy to the case.[62] As discussed *infra, very* good cause is usually required.

### *The Attorney-Client Privilege in Patent Litigation*

The attorney-client privilege grows out of the need to protect confidential communications made between attorneys and their clients.

The attorney-client privilege has received varied treatment in patent cases. It does not apply to preliminary novelty investigations,[63] to

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[60] James, *op. cit. supra* note 1, at 205.
[61] *Supra* note 59 at 511.
[62] Schlagenhauf v. Holder, 379 U.S. 104 (1964).
[63] Minnesota Mining & Mfg Co. v. Gentex Corp., 153 *USPQ* 110 (Del. 1967).

papers relating to the filing of a patent application,[64] or to results of validity searches conducted apart from preparation for particular litigation.[65] The work product rule does not apply to these subjects either, because they are generally prepared not for litigation but for the orderly prosecution of the client's business.[66]

The attorney-client privilege extends only to communications from a client to his attorney for the purpose of eliciting legal advice.[67] While Wigmore[68] advocates a broad construction of "legal advice," the courts have generally construed the privilege more narrowly.[69] The *Minnesota Mining* case[70] held the law of the Delaware circuit to be that attorneys are not giving legal advice when advising their clients about patent matters except insofar as there may be a controversy pending in a court of record, citing the *Zenith Radio* case,[71] which stated that attorneys

> do not "act as lawyers" when not primarily engaged in legal activities; when largely concerned with technical aspects of a business or engineering character, or competitive considerations in their companies' constant race for patent proficiency, or the scope of public patents, or even the general application of patent law to developments of their companies and competitors; where making initial office preparatory determinations of patentability based on inventor's information, prior art, or legal tests for invention and novelty; when drafting or comparing patent specifications and claims; when preparing the application for letters patent or amendments thereto and prosecuting same in the Patent Office; when handling interference proceedings in the Patent Office concerning patent applications.

Part of the holding of the *Zenith* case appeared to be based on the fact that these activities were not limited to attorneys, but that agents and other non-lawyers may practice before the Patent Office, and that consequently such work could not be legal advice.

Contemporarily with the *Minnesota Mining* case, another judge of the same court was ruling on a motion to produce certain correspondence between outside attorneys and their clients in *Sperti Products,*

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[64] *Ibid.*

[65] Clevite Corp. v. Beckman Instruments, Inc., 257 F. Supp. 50, 151 *USPQ* 369 (S. Calif. 1966).

[66] *Ibid.*

[67] 8 *Wigmore on Evidence,* § 2292 (1961).

[68] *Ibid.,* § 2300 (a)., and case cited *supra* note 63.

[69] *Ibid.*

[70] *Supra* note 63.

[71] Zenith Radio Corp. v. Radio Corp. of America, 121 F. Supp. 792, 101 *USPQ* 316 (Del. 1954).

*Inc.* v. *Coca-Cola Co.*[72] The court held that communication from an outside attorney to his client is privileged if it is based upon or relates to information furnished by the client in connection with the performance of professional services by the attorney. It is not privileged if it is not in a professional capacity, or if it is not based upon facts communicated by the client in connection with his professional employment. Therefore it is not privileged if it is based solely upon public documents such as patents, statutes, decisional law, information supplied by third parties, or sources other than the client's disclosures. The court held that *Sperry* v. *State of Florida*[73] implied that practice before the Patent Office constituted a form of practicing law, whether or not the practitioner is a lawyer. Accordingly the communications between an outside attorney to his client relating to Patent Office proceedings were subject to the attorney-client privilege.

On Gentex's request for reconsideration in the *Minnesota Mining* case in view of the *Sperti* case, the court denied the request and pointed out that the opinions of the two judges apparently differed.[74] Thus the net result appeared to be a split of opinion within the court as to the applicability of the attorney-client and work product privileges to materials obtained for use in Patent Office proceedings.

In *Chore-Time Equipment, Inc.* v. *Big Dutchman, Inc.*,[75] the court denied a motion to produce correspondence between the plaintiff and his attorneys concerning his patents. It quoted from the *United Shoe* case[76] that

> The privilege applies only if (1) the asserted holder of the privilege is or sought to become a client; (2 ) *the person to whom the communication was made (a) is a member of the bar of a court, or his subordinate,* and *(b) in connection with this communication is acting as a lawyer*; (3) the communication relates to a fact of which the attorney was informed (a) by this client, (b) without the presence of strangers, (c) for the purpose of securing either (i) an opinion of law or (ii) legal services or (iii) assistance in some legal proceeding and not (d) for the purpose of committing a crime or tort; and (4) the privilege has been (a) claimed and (b) not waived by the client. (Emphasis added.)

As to attorneys employed in corporate patent departments, *United Shoe* observed:

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[72] 262 F. Supp. 148, 152 *USPQ* 790 (Del. 1966).

[73] 373 U.S. 379 (1963).

[74] 153 *USPQ* 334 (Del. 1967).

[75] 255 F. Supp. 1020, 150 *USPQ* 426 (W. Mich. 1966).

[76] United States v. United Shoe Machinery Corp., 89 F. Supp. 357, 85 *USPQ* 5 (Mass. 1950).

> Grist which comes to their mill has a higher percentage of business content than legal content . . . . So far as the proferred evidence in this case shows, the principal topics on which they spend time are questions of business policy, of competition as disclosed by facts derived from third persons, of the scope of public patents. . . . They have not been shown to spend most of their time on the application of rules of law to facts which are known only to employees.

The *Chore-Time* court found that attorneys who work in patent departments "function less as detailed legal advisers than as a branch of an enterprise founded on patents," and that their work connected with advising corporations on patent applications should not be considered "legal advice." But "outside lawyers," independent lawyers who are engaged specifically for the legal advice they can provide concerning patent applications, stand on a different footing. The "outside counsel" for corporations almost invariably, and "house counsel" ordinarily qualify under the requirement of "acting as lawyers."[77] The court quoted the further passage from *General Shoe*:

> The modern lawyer almost invariably advises his client upon not only what is permissible, but what is desirable. And it is in the public interest that the lawyer should regard himself as more than predicter of legal consequences. His duty to society as well as to his client involves many relevant social, economic, political and philosophical considerations. And the privilege of non-disclosure is not lost merely because relevant non-legal considerations are expressly stated in a communication which also includes legal advice. It follows that in so far as these letters to or from independent lawyers were prepared to solicit or give an opinion on law or legal services, such parts of them are privileged as contain, or have opinions based on information furnished by an officer or employee of the defendant in confidence and without the presence of third persons.

Insofar as communications are based on facts obtained from a public record, they are not privileged.[78] The *Chore-Time* court disposed of some of the documents on this ground.

The court found that every communication between a client and outside counsel must be reviewed in the light of all the attendant facts to determine its status vis-à-vis the attorney-client privilege. The client should not be deprived of his privilege merely because his legal relationship with his attorney also includes correspondence on highly technical matters. Patent lawyers should not be classified as quasi-lawyers merely because they are competent in scientific and technical matters as well as law.

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[77] Zenith case, *supra* note 71 at 121 F. Supp. 794, 101 *USPQ* 318.

[78] American Cyanamid Co. v. Hercules Powder Co., 211 F. Supp. 85, 135 *USPQ* 235 (Del. 1962).

As stated in *Ellis Foster Co.* v. *Union Carbide and Carbon, Inc.*,[79] attorney-client communications involving more than mere technical matters should be immune to discovery proceedings. The mere fact that non-lawyers could also have performed the services should not destroy the privilege.

Thus it seems to be reasonably established that the attorney-client privilege is applicable to legal advice given by a patent attorney to a client where the patent attorney is acting *as a lawyer,* i.e., the advice is predominantly legal rather than technical or economic.[80] The test is applied to each communication to determine whether its character is essentially legal, technical, or economic. Courts may differentiate between independent counsel (outside counsel), house counsel, and attorneys in the patent department of a corporation, but such characterization should be only one factor in determining whether the communication is privileged. The inquiry should be directed to the nature of the communication rather than the type of attorney involved. The *Sperti*[81] court apparently would extend the privilege to non-attorney agents, but more of the courts would not go so far except perhaps in the more conventional situation where the client reasonably believes the agent to be an attorney.[82]

### *The Work Product Rule in Patent Litigation*

Where the attorney-client privilege focuses on the communicating parties and the confidence of the communications, and confers an absolute privilege against disclosure, the "work product rule" focuses on whether the communications were made for the purpose of the litigation at hand, and whether they are of the character of a lawyer's work in preparation for a case. Work product has only a qualified privilege, and it may be discovered upon a showing of good cause.

The leading patent case dealing with the work product rule is *E. I. duPont de Nemours & Co.* v. *Phillips Petroleum Co.*,[83] which

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[79] 159 F. Supp. 917, 116 *USPQ* 576 (N.J. 1958).

[80] Cases cited *supra* notes 63, 71, 72, 75, 76, and 78-79; Georgia Pacific Plywood Co. v. U.S. Plywood Corp., 108 *USPQ* 294 (S. N.Y. 1956); International Minerals Corp. v. Golding-Keene Corp., 162 F. Supp. 137, 118 *USPQ* 151 (W. N.Y. 1958).

[81] *Supra* note 72.

[82] 8 *Wigmore on Evidence,* § 2302 (1961).

[83] First reported decision 120 *USPQ* 523 (Del. 1959); second decision reported 24 FRD 416, 123 *USPQ* 519 (Del. 1959), on reconsideration 123 *USPQ* 519 (Del. 1959).

involved a polypropylene patent. Shortly before the patent issued, and in anticipation of litigation, the plaintiff retained counsel and on his advice notified the defendent that the patent would issue shortly covering defendant's product known as "Marlex," and that plaintiff would be willing to license defendant under the patent. After the patent issued, the patentee upon council's advice obtained samples of defendant's product and had it analyzed and tested by their technical staff. The technical staff worked closely with the counsel, and were presumably under his direction. Reports were sent to the counsel marked "For Information of Counsel." Defendants submitted interrogatories demanding the reports, test data, calculations, charts, and spectra covering these tests and the names of the technical staff who made them, and the plaintiff objected.

The court held, first, that production of papers and documents could not be obtained by interrogatories under Rule 33, but must be accomplished under Rule 34 (Discovery of Documents, et cetera),[84] which requires as a condition precedent that good cause be shown. Therefore it was immaterial whether the materials were privileged communications or work product. They could not be obtained without good cause regardless of their classification, and defendants had not shown good cause. Moreover, it might be difficult for them to show good cause because they were seeking results of tests on their own product, and they presumably could make such tests just as well as the plaintiff.

Seven months later, the parties were back in court to obtain rulings on objections by both parties to requests for production of documents under Rule 34.[85] Most of the objections were grounded on the work product rule. The court stated that the work product rule has come to be used by judges and lawyers as a convenient name for the embodiment of a broad policy that a lawyer, doing a lawyer's work in preparation of a case for trial, should not be hampered by the knowledge that he may be called upon at any time to hand over the results of his work to his opponents. It is altogether distinct from the attorney-client privilege, and it merely creates confusion to refer to it as a privilege or even a "qualified privilege." The court found that the

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[84] Alltmont v. U.S., 177 F. 2d 971 (3rd Cir. 1949), *cert. denied.* 339 U.S. 967 (1950); Lumbermen's Mutual Casualty Co. v. Pistorino, 28 FRD 1 (Mass. 1961); U.S. v. Loew's, Inc., 23 FRD 178 (S. N.Y. 1959).

[85] At that time, some 2000 pages of depositions of 15 of plaintiff's employees had been taken and more than 9000 pages of documents had been informally produced.

rule (1) is not necessarily limited to statements of witnesses, (2) applies only when the information asked for has been acquired by the lawyer in preparing for trial, and (3) applies only to matters obtained or produced by the lawyer through work which involves his professional skill and experience.

It found that

> Broadly speaking, the rule is nothing more than an extension of the requirement for a showing of good cause for the production of documents to information of all kinds developed by a lawyer in preparing his case for trial, with the addition . . . that in such cases the courts are, in effect, put to the very difficult task of finding very good cause as distinguished from good cause. The essential problem . . . is to prevent use of the discovery machinery to hinder the orderly and proper administration of justice by impairing the effectiveness of a lawyer's preparation of his case and at the same time not to defeat the purposes of discovery by allowing suppression of relevant facts.

It found the case before it to be a peculiar one in that infringement could be established only by opinion testimony of experts. (The patent claim was to a product defined partially by a complex set of physical and chemical parameters.) Thus the validity of the tests made by the plaintiff came close to being the ultimate issue of the case. Most of the documents were not work product because they dealt with scientific work entirely unconnected with any legal matters and far beyond the capacity of most lawyers. It did not become work product merely because the workers at some point were ordered to send their reports to the legal department.

The court found the required very good cause had been shown. While the products were equally accessible to both parties, identification of them was a difficult matter and different results could be obtained depending upon which of numerous procedures was used. The defendant was entitled to know what type of procedures were used so that he could intelligently challenge the validity of the tests.

The material sought was relevant because it went to the issues of validity and infringement which were the issues for trial. Therefore the material was relevant to defendant's contentions.

The court noted that the *mere hope* that something would turn up to impeach the plaintiff's experts would not be regarded as good cause. While "fishing expedition" is no longer a valid objection to discovery, the court will require the moving party to show more than a mere possibility that relevant evidence exists before discovery of documents will be allowed.

An earlier case, *Cold Metal Process Co.* v. *Aluminum Co. of*

*America,*[86] involved issues similar to those involved in *DuPont.* Cold Metal had cause to believe that the validity of its patent would be attacked, and employed through its attorneys the services of an expert to make X-ray examinations of products produced under the old method and the patented method for the purpose of determining whether certain statements in the patent were true. The court held that the communications and activities of the expert performed under the direction of the attorney were privileged although the court made no clear distinction between the treatment as attorney-client privilege or work product. However, the case appears to be overruled because the successor to the expert in the case was compelled to answer questions in *Sachs* v. *Aluminum Co. of America,*[87] in a similarly opaque opinion in which the court stated that:

> Dr. Sachs is not an attorney but is an expert in X-ray metallography, who was engaged by counsel for the Cold Metal Process Company to make certain tests and X-ray photographs of samples of metal furnished him. His services were procured in preparation for the trial of a patent case. The information obtained by Dr. Sachs is not deemed to fall within the attorney-client privilege protecting the "work product of the lawyer." This information appears to be essential to a vital issue in the case and is evidentiary in character.

Thus the court confused the attorney-client privilege and the work-product rule so that it is not clear what the holding of the case actually is. It appears to be that the tests were work product but that good cause for its production was present, a result that is consistent with the *Du Pont* case. But the case seems to give the misleading impression that matters which are privileged under the attorney-client privilege might be reached if they are vital to the issue. Such impression would be in error. The attorney-client privilege is absolute if it is present.

The work product rule has been held to extend to proofs and evidence passed between the defendant and a third party relating to settlement of a Patent Office interference in which the patent was involved.[88] It remains applicable when parties having mutual interest in litigation exchange their work product.[89] The *Stanley*[90] court held that tests conducted by Arthur D. Little, Inc. in preparation for trial were work product.

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[86] 7 FRD 684, 76 *USPQ* 91 (N. Ohio 1947).

[87] 167 F. 2d 570, 77 *USPQ* 649 (6th Cir. 1948).

[88] Technical Tape Corp. v. Minnesota Mining & Mfg. Co., 107 *USPQ* 118 (S. N.Y. 1955).

[89] Stanley Works v. Haeger Potteries, Inc., 142 *USPQ* 256 (N. Ill. 1964); Transmirra Products Corp. v. Monsanto Chemical Co., 26 FRD 572 (S. N.Y. 1960).

[90] *Ibid.*

*Application of the Rules to Specific Patent Problems*

*Search Results*

In *Clevite Corporation* v. *Beckman Instruments, Inc.*,[91] the defendant submitted interrogatories asking whether patentability searches had been made, and if so, what art had been found. On objection, he stipulated that the response would not be used as an admission of the relevancy of the art to the patents in suit. In answer to plaintiff's contentions that the response was privileged within the attorney-client and work product rules, the court pointed out that the discovery sought was only certain limited factual information derived from the searches and not the report of the searches themselves. It noted that the mere fact that the search was conducted by an attorney did not establish either the attorney-client or work product privilege, but that even if the limited factual information sought were clearly work product, there were adequate reasons for its production. The only "adequate reasons" stated by the court were (1) "the guiding philosophy of federal discovery that a trial is not a sporting event but a search for truth," (2) "a well-recognized public interest to be served in assuring that a patent monopoly does not spring from a background of fraud or other inequitable conduct," and (3) "that no known and controlling prior art was concealed from the Patent Office at the time the patent issued."

The case illustrates divergencies from preferred rules in numerous ways. While many authorities would agree that the preliminary searches were not shown to fall within the attorney-client rule (not having been shown to have been made in confidence) or the work product rule (not having been prepared in preparation for a trial in a court of record), it is generally agreed that the content of documents cannot be reached by interrogatories, but must be reached by a motion under Rule 34. The reasons thought to constitute "good cause" by the court are mere generalities having no persuasive force. The first reason was merely a general statement applicable to all cases, and it was clearly recognized in the Hickman case. The work product rule is fully consonant with the guiding philosophy of discovery. The second reason is a generality applicable to all patent cases, and if it were adequate to constitute good cause, the work product rule would never apply in patent litigation. That the rule does apply is amply clear from the cases cited in this paper. The third reason is wholly at odds

[91] *Supra* note 40.

with the rule in the *DuPont* case that there must be more than mere hope that something will turn up to constitute good cause. The defendant in *Clevite* laid no foundation at all for reaching the search results on a theory of fraud in withholding prior art. Finally, no reason is apparent why the defendant could not make his own search of the prior art as well as the plaintiff.

Therefore the *Clevite* case is strongly suspect, but it amply illustrates the point under discussion here, i.e., that preliminary novelty searches are not privileged. The general rule appears to be that prosecution of a patent application before the Patent Office is not "legal" work such that the attorney-client and work product privileges attach to materials gathered to aid the prosecution or preparation of an application.[92] Therefore validity searches conducted apart from preparation for particular litigation as well as preliminary novelty searches and other papers relating to filing and prosecution are usually not privileged.

Insofar as the denial of the privileges is based on the fact that such work before the Patent Office is not limited to lawyers, but can be handled by agents, the *Sperti*[93] and *Chore-Time*[94] cases indicate a trend toward recognition that such work falls under the same policy as the rules allowing the privileges in court litigation. The Delaware court in *Sperry Rand Corp.* v. *International Business Machines*[95] took a giant step toward the application of these privileges to proceedings in the Patent Office when it held that there was no reason to treat interference proceedings in the Patent Office differently from interference proceedings in the courts under 35 U.S.C. 146. The court used the reasoning of the *Sperti* case that the *Sperry* case had undermined much of the foundation of earlier cases holding materials prepared for Patent Office proceedings to be outside the privileges.

Of course, interference proceedings in the Patent Office are contested cases somewhat more analogous to proceedings in courts than *ex parte* prosecution of applications. Therefore the courts may not yet be willing to apply the privileges to all dealings with the Patent Office. However, as noted *infra,* it seems to be the majority rule now that the privileges apply fully to contested interference proceedings. And it is submitted that both privileges should apply with full force to the *ex parte* prosecution of applications. After all, the privileges apply to *ex*

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[92] See cases cited *supra* notes 63-66 and 71-72.
[93] *Supra* note 72.
[94] *Supra* note 75.
[95] 45 FRD 287, 159 *USPQ* 633 (Del. 1968).

*parte* cases in the courts. And the strong public policies which underlie the patent system are just as important as the policies which warrant the privileges in the courts.

*Patent Applications*

It seems well settled that patent applications are not privileged *per se,* but that their production will be compelled only where there is a strong connection between them and the patent in suit.[96] The rules governing disclosure of applications are essentially those which govern disclosure of trade secrets, and the usual objection to disclosure of applications is on the ground that the invention is a trade secret.

Courts have agreed that the patent application is not a public document until it is issued,[97] but they have uniformly recognized that the confidential status of applications conferred by 35 U.S.C. 122 is directed only to the Patent Office.[98] The only traditional basis for allowing protection to applications is the legitimate interest in the protection of the invention disclosed in them where it is a trade secret.[99]

A court compelled production of a third party's patent application which was alleged to show that the patentee was not the first inventor of the invention in the patent, even though the third party had conceded priority during an interference proceeding.[100] Production is also compelled where the application is set up as an anticipation of the patent in suit.[101]

When an application is produced, the court usually orders a certified copy of the application which is sealed and left with the court until an order for inspection is issued.[102] The court inspects the application *in camera* to determine its relevance, and orders for production are conditioned on counsel's assurances that the contents will not be

[96] Struthers Scientific Corp. v. General Foods Corp., *supra* note 44; James B. Clowe & Sons, Inc. v. U.S. Pipe & Foundry Co., 313 F.2d 46, 136 *USPQ* 397 (5th Cir. 1963); Meese v. Eaton Mfg. Co., *supra* note 37; Crown Machine & Tool Co. v. KVP-Sutherland Paper Co., 244 F. Supp. 543, 146 *USPQ* 1 (N. Calif. 1965); Wilson Jones Co. v. Elbe File & Binder Co., Inc., 138 *USPQ* 570 (Mass. 1963).

[97] Utah Radio Products Co. v. Delco Appliance Corp., 32 *USPQ* 115 (W. N.Y. 1937).

[98] Crown Machine & Tool Co. v. KVP-Sutherland Paper Co., *supra* note 96; Britt Tech. Corp. v. L & A Products, Inc., 139 *USPQ* 334 (Minn. 1963).

[99] Great Lakes Carbon Corp. v. Continental Oil Co., *supra* note 56.

[100] U.S. Pipe & Foundry Co. v. Woodward Iron Co., 140 *USPQ* 208 (4th Cir. 1964).

[101] *Supra* note 97.

[102] *Ibid.*

revealed to the defendant or to any other person except to the extent that the court expressly permits.[103]

One court has held that documents relating to the filing and *ex parte* prosecution of a patent application fall within the attorney-client privilege where they deal with advice between the counsel and the inventor about proposed changes to the application which were abandoned and never made.[104]

*Discovery in Aid of Interference Proceedings*

35 U.S.C. 24 enables the courts to subpoena witnesses for testimony in aid of contested cases in the Patent Office. The provisions of the Federal Rules relating to attendance of witnesses and production of documents and things are made applicable to these proceedings.

*In re Natta*[105] involved a four-party interference in the Patent Office. The subject matter of interference was a solid polymeric polypropylene. The parties were, in order of seniority, Natta *et al.*, Baxter *et al.*, (assignor to E. I. du Pont de Nemours & Co.), Zletz, and Hogan *et al.*, and these parties have received numerous rulings on their requests for discovery. Natta filed a motion for production of some 31 categories of documents believed to exist in DuPont's files. DuPont objected, alleging that the court lacked jurisdiction, that good cause did not exist, and that the scope of the request was so sweeping that it would reveal trade secrets and be unduly burdensome.

The court found that jurisdiction was conferred by 35 U.S.C. 24,[106] and that production of documents would be allowed upon a showing of good cause, but that no "fishing expeditions" would be permitted, discovery would be held within reasonable bounds, and no matter even bordering on trade secrets would be revealed. Reargument was denied.[107]

In a supplementary opinion,[108] the court discussed the merits of Natta's motion. DuPont had been given the benefit of the filing date of the earliest of a series of three applications, and had become the second most senior party, and the documents sought were dated between the date of the earliest case and the latest case. They were

[103] Crown Machine & Tool Co. v. KVP-Sutherland Paper Co., *supra* note 96.

[104] International Minerals Corp. v. Golding-Keene Co., 162 F. Supp. 137, 118 *USPQ* 500 (W. N.Y. 1958).

[105] 259 F. Supp. 922, 151 *USPQ* 371 (Del. 1966).

[106] Accord: Hogan v. Zletz, 151 *USPQ* 103 (N. Okla. 1966).

[107] In re Natta, 151 *USPQ* 371 (Del. 1966).

[108] In re Natta, 264 F. Supp. 734, 153 *USPQ* 11 (Del. 1967).

purportedly needed to show that the granting of the benefit of the earlier case was in error. The court recognized that subsequent conduct has bearing on the issue whether an alleged reduction to practice was successful. Since the documents were relevant to this issue and there was no other means of access to the information, the use of the documents to attack the invention date of the opponent was good cause for production.

The court disposed of the contention that the documents were privileged by falling back on the rule that communications to and from a lawyer serving in a corporate patent department are excluded from the attorney-client privilege. It did not discuss the work product rule, but left open the question whether specific documents should be excluded under the attorney-client or work product privileges. The decision was affirmed on appeal.[109]

Meanwhile, the Oklahoma district court was dealing with the same issues in another action in which Natta was attempting to discover documents of the parties Hogan and Zletz.[110] The issue was whether certain categories of documents were privileged. The categories were:

Group 1: Certain opinions of legal counsel on legal questions.
Group 2: Communications by the client to counsel to obtain legal opinions.
Group 3: Working papers prepared by counsel for use in the prosecution of legal proceedings.
Group 4: Documents related to preparation of the preliminary statement in the interference.

The court rejected the blanket contention that patent attorneys did not fall within the attorney-client privilege. It held that each document in Groups 1 and 2 must be filed with the court so that they could be inspected *in camera* for individual evaluation of each document. Upon evaluation of the documents, certain of them were held to fall within the attorney-client privilege because they were between the "control group" of the Patent Division and the Research and Development Department or the "Patent Committee" of the company. In other words, communications between certain echelons of the patent and management departments, the "control group," were privileged. Communications outside the "control group" were not.

The Court of Appeals[111] agreed that the attorney-client privilege extended to documents between corporate patent attorneys and their

[109] In re Natta, 388 F.2d 215, 156 *USPQ* 289 (3rd Cir. 1968).
[110] Hogan v. Zletz, 154 *USPQ* 230 (N. Okla. 1967).
[111] Natta v. Hogan, 392 F.2d 686, 157 *USPQ* 183 (10th Cir. 1968).

clients under certain conditions. They adopted the "control group" test to determine whether a person was a "client." Whether a person is a client for purposes of the privilege depends on whether he has the authority to control, or substantially participate in, a decision regarding action to be taken on the advice of the lawyer, or is an authorized member of a group which has such power. The court found no reason to distinguish between corporate lawyers and "outside" or "house" counsel for purposes of the privilege.

The appellate court disagreed with the lower court on the work product issue. The lower court had held that documents in Groups 3 and 4 were not work product because they were not prepared "for possible litigation after a claim was recognized as having arisen." The appellate court held that interference proceedings were equivalent to proceedings in a court of record for purposes of the work product rule. Therefore work done in preparation for interference in the Patent Office should be as much as the attorney's own work as any other work product.

The *Natta* cases produced one other notable point. In *Ziegler* v. *Natta*,[112] the court noted that neither the attorney-client privilege nor the work product rule would be applicable if their application would allow a fraud to be committed. Therefore, an attorney's affidavit could be discovered where there was an issue of the *bona fides* of an amendment to an application which changed the number of inventors on the application.

*Sperry-Rand Corp.* v. *International Business Machines*[113] presents a clear holding that material prepared for prosecution of an interference in the Patent Office qualifies as work product. The court found no reason why one standard should be applied in court cases under 35 U.S.C. 146, and another to the same type of proceeding in the Patent Office. Such material can be protected under proper circumstances by both the attorney-client and work product privileges.

Numerous other cases have agreed that a contested case in the Patent Office should be treated as a contested case in court for purposes of discovery.[114] *Gladrow* v. *Weisz*[115] required production of a notebook referred to in a memorandum offered to support a witness's testimony about the date of conception of an invention. There was good cause for discovery even though the notebook did not

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[112] 157 *USPQ* 400 (S. N.Y. 1968).

[113] *Supra* note 95.

[114] *E.g.*, Miller v. H. V. Cacao-En Chocoladefabrieken Boon, 142 USPQ 364 (E. N.Y. 1964), case cited *supra* note 111.

[115] 148 *USPQ* 110 (5th Cir. 1966).

further the proof of the junior party's own date of invention in that the party could use the information to cross-examine the senior party and attack his date of invention. Later cases have held that production of documents does not have to be in connection with a witness's testimony.[116]

## Is The Tail Wagging The Dog Today?

As discussed above, the liberal use of discovery grows out of attempts to cure defects in common law pleading. But many authorities today are disturbed about the almost unlimited extent to which discovery is being used. One attorney has estimated that less than 10 percent of the discovered material is used at trial.[117] Judge Kaufman[118] has reported the enormous scope of discovery proceedings in two extensive patent suits. In *Ferguson* v. *Ford Motor Co.*,[119] an antitrust suit involved also claims of patent infringement and unfair competition. A special master was appointed to rule on all motions related to discovery. More than 100,000 pages of depositions were taken of approximately 173 witnesses. About 45,000 documents were marked as exhibits, and more than 700,000 pages of documents were produced. The master conducted hearings on about 350 days.

In *Armstrong* v. *R.C.A.*,[120] the suit involved patent litigation on FM broadcasting. A special master was appointed to supervise pretrial proceedings. Over a two-and-a-half year period, the master devoted 953 hours to the case on more than 330 different days. As an impartial third party who was completely familiar with the issues, the parties requested that he negotiate a fair settlement. The case was settled for more than a million dollars.

In the *Richfield Stations* antitrust case,[121] the government's answers to interrogatories covered some 165 typed pages. The defendant voluntarily supplied facts which covered 135 pages.

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[116] Cases cited *supra* notes 105-107, Natta v. Kletz, 379 F.2d 615, 153 *USPQ* 768 (7th Cir. 1967).

[117] "Report on Study of the Protracted Case," Address Delivered to Tenth Circuit Judicial Conference by Judge Irving Kaufman, Denver, Colo., May 10, 1957, 55 FRD at p. 60.

[118] *Ibid.*

[119] Decision reported at 77 F. Supp. 425, 77 *USPQ* 464 (S. N.Y. 1948), but the background material reported by Judge Kaufman does not appear in the report.

[120] Decision reported at 8 FRD 410, 79 *USPQ* 379 (Del. 1948), but Judge Kaufman reports material which does not appear in the reported case.

[121] Case discussed at *"Short Cuts" in Long Cases,* 13 FRD 41 at 52-53 (1951).

In the *Natta* case,[122] DuPont claimed that granting the motion would create substantial hardship on personnel in producing file material, and that the expense would exceed $50,000. The court noted that discovery was granted on 1600 documents in the *Zenith Radio* case.[123] More than 6000 documents had been requested in that case.

Therefore it is apparent that discovery in patent cases can be extremely expensive and time-consuming. Accordingly it is necessary to exercise rigid control over it to exclude all irrelevant, unnecessary, and incompetent material. As stated in the *Prettyman Report*:

> It is not practical to proceed in these [antitrust and other protracted] cases as in a lawsuit of ordinary complexity and bulk; that is, to let the parties exhaust the cross fire of pleading, to conduct open-court pre-trial hearings, or to let counsel try the case as they please. The potential range of issues, evidence and argument is so great, and the necessities of adversary representation so compelling, that the activities of counsel will result in records of fantastic size and complexity unless the trial judge exercises rigid control. . . .
>
> Whatever may be the objections and difficulties to specification of issues in ordinary actions, the necessity for such specification in the case with which this report is concerned is so great as to require that it be done no matter what the objection or difficulty. Unless it is done . . . the judge is unable to relate the evidence to issues which are in dispute or to limit it to that which is relevant.[124]

But in patent cases dealing with complex technical issues, the court simply cannot supervise the procedure accurately. Too often the court simply cannot determine what evidence is needed. As a result, it may either make a decision which is simply an arbitrary choice, or it may defer decision until further information is received. The *Niks* case[125] illustrates the former "solution." The plaintiff wanted access to the plant and defendant instead offered certain blueprints. Plaintiff urged that the blueprints were entirely useless, while the defendant maintained that they were wholly adequate. The court, with commendable candor, stated that "Solomon exercising all his wisdom on this record here could not decide whether the blueprints furnished are sufficient or insufficient." The court rendered a compromise decision requiring production of certain drawings and blueprints but denying access to the plant at the time, a decision which probably pleased neither party. The court lamented that "Unnecessary confusion enters the picture, and the fault of confusion exists on both sides." He was

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[122] *Supra* note 108.

[123] *Supra* note 71.

[124] "Procedure in Anti-Trust and Other Protracted Cases" (The Prettyman Report), 13 FRD 62 (1951) at pp. 66-67.

[125] *Supra* note 54.

"sure that the attorneys by sincere effort can agree upon the drawings and blueprints . . . which should be covered by this order." While it is probably true that they *could* sincerely try to reach agreement, the volume of litigated cases today indicates that litigants as a practical matter do not always reach agreement. One can even doubt whether an accused wrongdoer is likely to be "sincere."

The second type of "solution" is illustrated by the *International Nickel* case.[126] There the ruling was simply postponed until facts were developed at the trial. This result simply defeats the whole purpose of discovery.

Under these circumstances, discovery may be of little benefit. If the court is unable to appreciate the nature of the facts sought, or of the facts offered in place of requested information, it cannot properly rule on the motion. And too much discovery may be fully as much of a problem as too little. In fact, too much discovery may well have the effect of pricing the litigant out of the court.

## Suggestions for Containing Discovery Proceedings

In the interests of confining discovery to a channel in which it can perform its proper function, it is suggested that the following guidelines would be helpful.

### *Technical Issues Should Be Decided by Trained Masters or Advisers*

Complex technical questions should preferably be decided by technically trained persons. If the actual decision is retained by the judge, he should at least have the interpretive advice of a technical adviser.

Where a motion for discovery involves a consideration of the relevance, sufficiency, or necessity of technical material, the court should appoint a master to rule on the motion. Ample precedent exists for such appointment. For example, see the *Ferguson* v. *Ford* and *Armstrong* v. *R.C.A.* cases discussed *supra*. Results obtained by the use of special masters have generally been considered to be excellent.

Special masters may be appointed under Rule 53. The cost of the master can be allocated by the court. Therefore the cost of good faith discovery can be shared by the parties, or the cost can be used as a penalty in the case of oppressive discovery.

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[126] *Supra* note 55.

Rule 53 (b) indicates a policy that reference to a master "shall be the exception and not the rule," but this provision is intended to apply to cases where the case is referred to a master in lieu of submission to the court or jury. It should not apply to cases where the master is appointed for the limited purpose of conducting pretrial proceedings. An agreement within a court to refer patent cases routinely to a master was criticized in *Los Angeles Brush Manufacturing Co.* v. *James,*[127] but the practice discussed in that case was not a *limited* use of a master. In any event, suitable amendments to either the rules or the Patent Act could accomplish the desired result.

Sometimes the parties will agree to the appointment of a technical adviser (not an expert) to the court, and Dr. Lawrence A. Wood of the National Bureau of Standards was so appointed in the *Natta* case.[128] But the court should obtain an interpreter whether the parties agree or not. Perhaps a standing panel of experts should be assembled for use in patent cases where discovery is directed to complex technical information. The Patent Office and the Patent Bar represent neutral groups which could furnish an adviser. Appointment of a member of the Bar to supervise discovery is reported by Judge Savage,[129] so precedent is available for such action.

*Standards of Relevance and Necessity Should Be Strictly Applied*

Discovery should not be used as an artifice for shifting the burden of proof except in unusual circumstances for compelling reasons. The burden of proof is a substantive declaration of legal policy. Discovery thwarts this policy when it is employed as a "fishing expedition" to uncover information without reasonable cause to believe that such information exists. Mere speculation as to what might be uncovered in files should not be considered "good cause" under Rule 34.[130] Without some independent evidence and a request for specific information, discovery should be denied.

*The Party Seeking Discovery Should Bear the Financial Risk*

Discovery inevitably is expensive to the interrogated party. The most effective way to insure that only that discovery which is necessary

[127] 272 U.S. 701 (1927).
[128] *Supra* note 108.
[129] Savage, *Seminar on Protracted Cases,* 23 FRD 319 at 349.
[130] Fastener Corp. v. Spotnails, Inc., 155 *USPQ* 209 (N. Ill. 209).

is requested is to have the requesting party *purchase* it. If the interrogator bears the expense, he will be likely to take a close look at the necessity for the information requested.

Where discovery is so burdensome as to constitute an unusual case, the cost can be shifted to the losing party by an award of attorney's fees under present law, 35 U.S.C. 285. Suitable legislation analogous to security-for-expenses statutes employed to discourage strike suits by corporate shareholders can be enacted.

While discovery is an important tool in the search for expedition and justice, the risk of abuse is high and this risk should fall on the party who chooses to use the tool. By imposing reasonable safeguards on its use, its advantages can continue to be enjoyed without the severe risks of injustice and oppression which accompany its misuse.

# The "Mental Steps" Doctrine: A Critical Analysis in the Light of *Prater and Wei*[*]

SAMUEL J. SUTTON, JR.

SUMMARY

IT IS THE PURPOSE OF THIS ARTICLE to present a complete discussion of a rather confused conglomeration of patent law notions which have coalesced into what has come to be known as the "mental steps" doctrine. This presentation is centered about the recent case of *In re Prater and Wei*[1] (referred to hereinafter as *Prater*), which is inevitably associated with the problem of drawing process claims to computer programs.

In the introductory section of the article the relationship between

[*] This paper was prepared by the author while a third-year law student in partial fulfillment of the requirements for Advanced Topics in Patent Law, a course conducted by Professor L. James Harris in The National Law Center of The George Washington University. The author is presently employed in the Patent Operation of General Electric's Information Systems Equipment Division in Phoenix.

[1] 159 *USPQ* 583, petition for rehearing granted. 160 *USPQ* 230, modified on rehearing. 162 *USPQ* 541 (CCPA 1969).

mental processes and the classical property law structure is examined; the difference between mental processes, mental steps, and physical steps is considered; closely related patent law doctrines are distinguished from the "mental steps" doctrine; and the importance of considering actual claim language is emphasized.

In the following section, the late Judge Smith's original *Prater* opinion[2] and Judge Baldwin's opinion on rehearing[3] are analyzed and compared.

In the next section, a selected group of pre-*Prater* "mental steps" cases, serving as examples, are analyzed in the light of *Prater* with an emphasis being placed upon the precise claim language involved, its relative breadth, and its relation to particular apparatus disclosed in the associated specification.

The final section contains a review and a summarizing statement.

## INTRODUCTION

### *Mental Processes in a Property Law Context*

ONE OF THE MOST REVEALING INDICIA of cultural development is the *kind* of property to which a society is able to afford some sort of meaningful protection. Consider, for example, the pre-neolithic cultural context in which the wheel was supposedly developed: Man at that time had trouble enough protecting his family, his home, and his food; the protection that he did have was largely a product of coercive self-help. In such a context it would be naive to think that the "inventor" of the wheel might be able to protect his intellectual property in this inventive idea when he could barely protect its prototype embodiment. Accordingly, a society which places value in the protection of the mere *form* in an author's writing and the new *concept* inherent in an inventor's technological contribution (if this society is also able to enforce sanctions against those who would misappropriate another's abstract or intellectual property), must rank relatively high on the "cultural development" scale.

[2] 159 *USPQ* 583 (CCPA 1968).
[3] 162 *USPQ* 541 (CCPA 1969).

As the various rule structures associated with a particular society strengthen through broad recognition and constant re-evaluation, they become increasingly disposed to the support and protection of property interests of progressively greater abstraction. But this process is not without limitation. Just as there are certain types of corporeal property—the open seas provide one example—which are, at the international level, incapable of exclusive appropriation by any individual nation; and just as there are forms of property within a particular state—such as air, highways or public parks—which belong to all members of the state collectively; so are there certain abstract or intellectual forms of property which may be classified as either *res nullius*[4] or *res communis*[5] and which are accordingly incapable of being owned by one person or one nation to the exclusion of all others.

An idea, abstracted from all corporeality, is the prime example of intellectual property which is *res nullius*. An idea which is new in a particular context is truly "property" to the extent that its originator exerted intellectual effort to create it and to the extent that, within the given context, it is valued by others. Clearly, a new idea (and any use thereof) may be kept secret by its originator and thereby inhibited from passing into the public domain. But this is not an *appropriation* of intellectual property, since it is not a *taking* of property from the public domain but a *creation* of a new property. In any case, such conduct is very much like the discoverer of Antarctica saying (to himself, of course), "I own Antarctica and no one may step foot on it." If someone later discovered the same land mass, this second comer might equally proclaim it his own, since the first discoverer had not perfected any public claim to it. On the other hand, if the first discoverer announced to the world that he had discovered Antarctica, it would be economically and physically impossible (due to the climatological hostility of the area), to *enforce* his self-proclaimed sovereignty. The point of this analogy is simply that, while an idea may be kept secret by its originator, it may not, by virtue of its fugitive and evanescent nature, be *exclusively* appropriated by anyone.

Within the context of our own patent system we recognize other forms of intellectual or abstract property which, even though they have a specific physical counterpart or manifestation, are not, *qua* abstract property, subject to exclusive appropriation—either for practical reasons or as a matter of policy. Among these are: the laws of nature, natural processes, the structure of materials found in nature,

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[4] "Property not capable of appropriation."
[5] "Property of everyone."

mathematical processes and—the subject of this paper—mental processes.

*Mental Processes, Mental Steps, and Physical Steps*

A *mental process* might best be viewed as a series of unique but undefined steps executed by the biological apparatus known as the human brain. A claim to a mental process would, in essence, define the function of this unique biological apparatus when it has been programmed (taught) to achieve a particular result. Claiming a true mental process (e.g., the steps of the presently unknown process through which the brain proceeds to add two plus two) would amount to claiming a process of nature and would be just as obnoxious to traditional patent law principles as claiming, for example, the process of photosynthesis.

A *mental step*, in the sense in which the term is employed by patent courts, is a step in a claimed process which may be performed by the human brain in combination with such peripheral devices as eyes and hands, but which may also be executed by a mechanical or electrical device. Action words such as "computing," "comparing," and "determining" are frequently (but not always) associated with mental steps in process claims.

For present purposes, a mental *process* may be viewed as the unknown series of operations which the brain goes through when actually performing a *single* mental *step* in a claimed process: Mental steps are portions of process claims; mental processes take place in the human mind.

The term "*purely mental* step" is apparently definitive of a claimed process step which may be performed *only* by the human brain; as, for example, "believing," "surmising," or "thinking."

A "*purely physical* step," on the other hand, is a process step which may be executed *only* by mechanical, electrical, or chemical (i.e. "non-mental") means; as for example "heating," "mixing," or "moving." Unfortunately, as was observed by Judge Baldwin, in his *Prater* opinion, classification of process steps as either "mental" or "physical" may not be done in the abstract:

> Between the *purely* mental and *purely* physical ends of the spectrum there lies an infinite variety of steps that may be either machine-implemented or performed in, or with the aid of, the human mind . . . . In ascertaining whether a particular step is "mental" or "physical," each case must be decided on its own facts, considering all of the surrounding circumstances, to determine which end of the spectrum that step is nearer. It may well be that the step

> of "comparing" may be "mental" in one process, yet "physical" in another.[6]

*Related Doctrines—Jural Underbrush*

The so-called "mental steps" doctrine has not until very recently been meaningfully separated from two closely interwoven patent law doctrines—both of which have apparently met their jurisprudential demise within the past few months. The first of these related doctrines required that a valid patent could not be obtained "for a process which involves nothing more than the operation of a piece of mechanism or, in other words, for the *function of a machine.*"[7] (Emphasis added.) The second related doctrine resulted from a misconstruction of the scope and meaning of the famous case of *Cochrane* v. *Deener,*[8] wherein the Supreme Court stated that:

> A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing. If new and useful, it is just as patentable as a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable; whilst the process itself may be altogether new, and produce an entirely new result. The process requires that *certain things should be done with certain substances,* and in certain order; but the tools to be used in doing this may be of secondary consequence.[9] (Emphasis added.)

From this dictum it has been repeatedly implied that all processes, to be patentable, must operate physically upon substances.

In the companion 1968 cases of *In re Tarczy-Hornoch*[10] and *In re Bekey*[11] the CCPA, speaking through Judge Rich's extensive and well-reasoned opinion, held that prior statements by the Supreme Court, as interpreted by lower courts, did "not require the rejection of process claims merely because the process apparently could be carried out only with the disclosed apparatus."[12] The court specifically adopted the analysis of the problem made by Robinson in 1890:

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[6] 162 *USPQ* 541 at 548, n. 22.

[7] Risdon Locomotive Works v. Medart, 158 U.S. 68, 77 (1894). See also, Corning v. Burden, 56 U.S. (15 How) 252 (1853) and Wyeth v. Stone, 1 Story 273 (C.C. Mass. 1840).

[8] 94 U.S. 780 (1876).

[9] 94 U.S. 780 at 787-88.

[10] 158 *USPQ* 141 (CCPA 1968).

[11] 158 *USPQ* 260 (CCPA 1968).

[12] 158 *USPQ* 141 at 147.

> Where a process consists entirely in the operation of a machine or other instrument, it approaches so nearly to the function of the instrument employed that several decisions have been rendered identifying it therewith, and hence denying its patentability. But the process and the function are, after all, two entirely separate entities, both in intellectual and physical contemplation; the former being capable of conception apart from any object acted on, the latter, not so. The difficulty is another form of the old confusion between the end and the means, and is to be avoided by defining sharply the end to be accomplished, and determining whether the machine or the operation performed by it is the actual means. For if the operation performed by the machine is new in reference to the object upon which it is employed, a new process has been invented; and this is no less true if the machine or instrument employed is new than if it were old, or if the process can be performed in no other known way than by this particular machine. While, on the other hand, if the operation is known in reference to the object, the invention of a new machine for performing it does not make a new process, but only a new instrument for applying it.[13]

The CCPA stated simply "that the basic rationale of the patent system demands the upholding of properly drawn claims for new, useful, and unobvious processes, regardless of whether the inventor had invented one, two or more machines to carry them out."[14]

The misconception voiced by many lower courts, that the *Cochrane*[15] case required all processes to operate on corporeal substances, was clearly rectified by the CCPA in *Prater.*[16] Judge Smith's opinion, building upon *Tilghman* v. *Proctor,*[17] the *Telephone Cases,*[18] *Smith* v. *Snow,*[19] and *Waxham* v. *Smith,*[20] stated that the intendment of *Cochrane* "was not to *limit* process patentability *but to point out that a process is not limited to the means used in performing it.*"[21] (Emphasis by the court.) In holding that neither case law nor the legislative history associated with Sections 100 and 101 of the 1952 Act would indicate that a process must act on a substance, Judge Smith noted:

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[13] 1 Robinson on Patents 256, n.2 (1890).

[14] 158 *USPQ* 141 at 150.

[15] 94 U.S. 780 (1876).

[16] 162 *USPQ* 541 (CCPA 1969).

[17] 102 U.S. 707 (1880).

[18] 126 U.S. 1 (1887). Judge Smith noted in *Prater* that in the *Telephone Cases* electrical *energy,* rather than any physical substance, was processed; and that, while *Cochrane* had been cited, there was no indication "of any rule in *Cochrane* that process claims are required to act on physical substance." (159 *USPQ* 583 at 592).

[19] 294 U.S. 1 (1935).

[20] 294 U.S. 20 (1935).

[21] 159 *USPQ* 583 at 592.

> . . . the law does not require that a *machine*, to be patentable, must act on physical substances, for example, an electric meter. It does not seem consistent to impose such a requirement on the other category of 35 U. S. C. 101—a "process"—without clearly evident and distinguishing reasons which are thus far not apparent.[22]

Judge Baldwin, in his opinion on rehearing of *Prater*, expressly affirmed Judge Smith's analysis of *Cochrane*.[23]

By doing away with the "function of the machine" rejection and by no longer requiring that processes operate on physical substances, the CCPA has cleared away a considerable amount of jural underbrush which had grown around (and with) the "mental steps" doctrine. The following summary is presented for the purpose of defining, and thereby hopefully isolating from the discussion of the "mental steps" doctrine, those rules of law which are causally related to (1) elimination of the "function of the machine" rejection, and (2) elimination of the requirement that processes operate on physical substances:

(1) Only one apparatus for carrying out a claimed process need be shown in the specification.
(2) It is immaterial that the particular apparatus shown is the only apparatus then capable of carrying out the inventive process.
(3) It is accordingly immaterial that the process claim in effect defines the function of the single apparatus disclosed for its execution.
(4) Process claims read on any and all machines which may be used to carry out the claimed process.
(5) A patented process need not operate on physical substances.

*Emphasis on Claim Language: Its Breadth and Its Relation to the Supporting Specification*

Any discussion of "mental steps" in process claims depends ultimately upon the *actual claim language* employed and, as will soon be apparent, upon both the relative breadth of the claim language and the precise nature of the means shown in the specification for executing the various steps in the particular process. Accordingly, this paper will place a marked emphasis upon an analysis of specific claim language which has appeared in litigated or appealed "mental steps" cases, including the extremely important *Prater* case. The general

[22] 159 *USPQ* 583 at 592.
[23] See 162 *USPQ* 541 at 549 and n.25.

approach to be taken is first to consider the "mental steps" aspects of *Prater*, as originally delineated by Judge Smith and as modified by Judge Baldwin on rehearing, and then to review the prior case law in order to discover the extent to which the *Prater* case represents a reversal, modification, or amplification thereof.

In order to facilitate a meaningful analysis of the various patents and applications discussed below, pertinent claim language has been quoted directly, although recitations of structure have been, for the most part, edited out. In addition to being extensively edited, each process claim presented for discussion has been normalized to a standard format: the introductory portion of the claim will be followed by the several process steps listed in lettered series (i.e., (a), (b), (c), etc.). Thus, while the particular claim language has been taken directly from the cited patent or application, a prefix letter has been added before each process step and the physical format of the claim has been modified accordingly.

Where applicable, citation has been made to issued United States patents whose claims have been litigated or appealed in those pre-*Prater* cases selected for discussion. These patents are valuable references because they provide one with a feeling for the general type of case in which the "mental steps" rejection has been invoked and because they provide a better understanding of the type of apparatus which has been disclosed in particular cases for carrying out the claimed process.

## The "Mental Steps" Aspects of *Prater and Wei*

### *General Comments*

The United States Court of Customs and Patent Appeals handed down the original *Prater* decision[24] on November 20, 1968 with an opinion authored by the late Judge Smith. A rehearing of the case was granted[25] on petition of the Commissioner of Patents and the decision on rehearing,[26] which modified the original decision, was handed down August 14, 1969. The rehearing opinion was written by Judge Baldwin.

Since the rationale of both *Prater* opinions is critical to a complete understanding of the "mental steps" doctrine, and since Judge Bald-

[24] 159 *USPQ* 583 (CCPA 1969).
[25] 160 *USPQ* 230 (CCPA 1969), with a strong dissent by Judge Rich.
[26] 162 *USPQ* 541 (CCPA 1969).

win's rehearing opinion incorporated, either directly or by reference, large portions of Judge Smith's opinion, a complete discussion of both opinions will be presented below.

### *The Original Opinion by Judge Smith*

The actual process involved in the *Prater* case is described with sufficient detail by the appealed process claims 9 and 17:[27]

> 9. In mass spectographic analysis where . . . there is generated a spectrum function having peaks . . . the method of selecting for analysis a set of peaks least susceptible to error in concentration determination which comprises:
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> (a) dividing . . . each peak by a normalizing function,
> (b) successively generating a determinant function for each said set of peaks,
> (c) successively generating an output indication of the magnitudes of said determinant functions, and
> (d) selecting therefrom the determinant function of greatest magnitude for identification of said peaks least susceptible to error.[28]
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> 17. The method of determining . . . from the spectra of spectrum analysis the concentration of the components of a mixture . . . which comprises:
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> (a) generating physical representations . . . of simultaneous linear equations defining the concentrations of said components . . . ,
> (b) generating from said physical representations . . . the magnitude of the determinant of a plurality of sets of said simultaneous equations . . . ,
> (c) comparing said physical representations of the magnitudes of said determinants . . . for identification of the set of said equations whose determinant has the largest magnitude, and
> (d) generating physical representations of the concentration of each said component of said mixture from said physical representations of . . . said set of . . . equations having said determinant of largest magnitude. . . .[29]

No prior art had been cited by the Patent Office against these claims.

In discussing the facts of the case, Judge Smith carefully noted that the applicants had *discovered* that a particular subset of equations associated with the various outputs of a spectrogram, when solved,

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[27] Recall that these, and subsequent, claims have been shortened considerably and normalized to a standard format to facilitate understanding and comparison.

[28] 162 *USPQ* 541 at 544.

[29] 162 *USPQ* 541 at 545.

yielded a most accurate determination of the relative presence of various gas components in a tested mixture; and that applicants had *invented* a machine for electromechanically implementing their *discovery*.[30] This critical discovery/invention relationship was strongly reinforced by Judge Baldwin in his rehearing opinion.[31]

The examiner rejected claim 17[32] on the ground that it was "readable upon a mental process . . . and . . . claims to a mental process are unpatentable. . . ." The case of *In re Abrams*[33] (hereinafter referred to as *Abrams*), which is discussed in detail below, was cited in support of this aspect of the rejection. The examiner stated that, under the "rules" of *Abrams,* the claim should fail under 35 U.S.C. 101 because "the *novel part* of the claim is readable on subject matter outside the statutory classes [meaning, apparently, on mental processes] . . . ."[34] In an alternative form of rejection, it was reasoned that, since the "claim reads on the physical process of a person marking paper during calculation by hand, . . . the claim is unpatentable under 35 U. S. C. 102;"[35] apparently because the human process of "generating physical representations" was known in the art prior to the applicants' invention.

Explicitly, then, the examiner seemed to feel that because a trained (might one say "properly programmed"?) human being could, with the aid of pencil and paper, generate (with his brain, eyes, and hands) physical representations (markings on paper) of linear equations, solve for the determinants of a plurality of sets of simultaneous

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[30] 159 *USPQ* 583 at 585.

[31] "Appellants' discovery . . . is, it seems to us, part of *their contribution to the art.* On that basis, appellants' discovery should be considered as part of *'the subject matter as a whole'* and *not* part of the prior art. It is conceded by the Patent Office that that discovery is both new and unobvious. Thus, *based on the record before us,* we do not perceive any reasonable basis for concluding that 'the subject matter as a whole' . . . would have been obvious at the time of appellants' invention . . . We find . . . [the Patent Office's] position fatally defective in that it, in effect, assumes the existence *as prior art* of appellants' discovery that the relationship indicative of error amplification 'is related to . . . the determinants of the subsets of equations. . . .' Perhaps today, *after* reading appellants' disclosure, the public dissemination of which the patent system fosters and encourages, it might be obvious. . . . But 35 U.S.C. 103 requires an analysis of the prior art *at the time the invention was made* to determine whether the invention was obvious. Graham v. John Deere Co., 383 U.S. 1 (1966)." (Emphasis by the court.) 162 *USPQ* 541 at 551.

[32] The individual significance of the original and rehearing opinions is somewhat amplified by reading Judge Smith's opinion with claim 17 in mind and reading Judge Baldwin's opinion with broader claim 9 in mind.

[33] 89 *USPQ* 266 (CCPA 1951).

[34] 159 *USPQ* 583 at 587.

[35] 159 *USPQ* 583 at 587.

equations, compare the results to determine which was the largest, and translate this result into an interpretative representation of the relative presence of gases in the particular mixture under test, the appealed claim should be deemed unpatentable either because (1) it read on a process which was not patentable under 35 U. S. C. 101 (a human mental process), or (2) it read on a process old in the art (the human process of placing marks on paper) and thus was barred under 35 U. S. C. 102.

In his analysis of the specification given in support of applicants' claimed process, Judge Smith pointed out that:

> The specification sets forth in detail the electrical and mechanical components of . . . [a] machine and their respective functions to relate the mathematical coefficients inherent in the present invention to a step in the method and to a means in the machine which directly performs the mathematical functions which underlie the present invention.[36]

Considering the Patent Office Board of Appeals' affirmance of the examiner's rejection, the court observed:

> The board found that the claims set forth nothing which could not be performed purely as a *mental* exercise using appellants' discovery and were of the opinion that the claims did not therefore fall within the statutory category of "process". . . . The board also agreed with the examiner that such a machine would be obvious to one skilled in the art, although it seems to us that this bald statement assumes the availability of appellants' admittedly novel and hitherto unknown discovery.[37]

After an extensive examination of the claims in the *Abrams* case, the court concluded:

> It is important to note that Abrams disclosed no *means* whatever for performing the claimed steps . . . of calculation and comparison . . . Abrams disclosed a claimed process which could *only* be performed in the mind insofar as the teachings of the application were concerned. Abrams therefore presents a significant difference . . . from the factual situation in the present case in which the teachings of the specification provide a full disclosure of apparatus for carrying out the steps in the claim *without requiring any steps to be performed in the human mind.* Additional teaching is also provided in the present application that the steps can *alternatively* be performed on other apparatus, i.e., a properly programmed digital computer, which would equally permit the process to be performed without involving steps performed in the mind by those skilled in the art informed of appellants' novel discoveries.[38]

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[36] 159 *USPQ* 583 at 585.
[37] 159 *USPQ* 583 at 587.
[38] 159 *USPQ* 583 at 590.

In discussing the three "rules of law" announced in *Abrams,* Judge Smith stated that "[a]lthough the basis for the Abrams decision is clear . . . much confusion in subsequent interpretation of . . . Abrams . . . has been caused by people misreading the decision as conferring judicial sanction upon the 'rules' formulated and proposed by Abrams' attorney."[39] The citation of the "rules of law" by the *Abrams* court was "merely to point out that even if, arguendo, the court had adopted his rules, Abrams would still not have prevailed in his particular fact situation."[40]

Tracing the "mental steps" doctrine through *Halliburton Oil Well Cementing Co.* v. *Walker*[41] to the case of *Don Lee, Inc.* v. *Walker*[42] both of which are considered in detail below, the court observed that language in *Don Lee,* "which appears to be the genesis of the doctrine of the unpatentability of so-called 'mental step' claims, is not only unsupported by any citation of precedent but its inception was directed to subject matter that was not even novel."[43]

By way of summary and as a specific holding of the case, Judge Smith made the following statement:

> Reviewing the foregoing development of the law relating to process claims, we find nothing to indicate an intent of Congress or the courts to deny patent protection to process claims merely because they could alternatively be read on a process performed through the mind by the use of aids such as pencil and paper.[44]

Finally, in order to reconcile the holding in the instant case with its holding in *Abrams,* the court concluded:

> We do not feel our reasoning need be encumbered by the so-called "Rules" of Abrams for the reasons we have indicated. However, it is noted that in Abrams, unlike the present situation, the claimed process could only be performed in the mind, so far as was apparent from the specification. The Abrams situation may thus be distinguished from that presently before us, in which there is adequate disclosure how the process can be performed without mental calculation. This distinction from Abrams leads us to our present holding which is that patent protection for a process disclosed as being a sequence or combination of steps, capable of performance without human intervention and directed to an industrial technology—a "useful art" within the intendment of the Constitution—is not precluded by the mere fact that the process could alternatively be carried out by mental steps.

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[39] 159 *USPQ* 583 at 591.
[40] 159 *USPQ* 583 at 591.
[41] 64 *USPQ* 278 (9th Cir. 1944).
[42] 14 *USPQ* 272 (9th Cir. 1932).
[43] 159 *USPQ* 583 at 591.
[44] 159 *USPQ* 583 at 593.

> In view of this holding, the rejection of the process claims under 35 U. S. C. 101 and 102 is reversed.[45]

The holding of the original *Prater* opinion may be paraphrased as follows:

Claims may be allowed covering a process which is of such a nature as to be capable of performance by the human mind in combination with simple aids such as pencil and paper so long as the inventor discloses one apparatus which can carry out the process without requiring any of the steps to be performed in the human mind.

### *The Rehearing Opinion by Judge Baldwin*

Although Judge Baldwin stated in his rehearing opinion "that this case is not *controlled* by Abrams, Yuan, or Cochrane v. Deener,"[46] this is not to be construed as removing *Prater* from the ranks of "mental steps" cases. Rather, this statement simply means that the "mental steps" doctrine, as developed through prior case law, does not per se encompass the *Prater* fact pattern. The second sentence of Judge Baldwin's opinion summarizes the significance of *Prater*:

> Insofar as we can determine, this is a case of first impression in that the claims in a *mechanical*, as distinguished from a chemical, case have been rejected because of their breadth, notwithstanding that no prior art reference has been cited *and* that the claims read on admittedly patentable statutory subject matter disclosed in the specification.[47]

After reviewing Judge Smith's opinion, Judge Baldwin observed that:

> . . . there is no dispute, as between the principal parties, that appellants have disclosed a patentable statutory process.
>
> However, that is quite another question from the one before us, namely, whether appellants are entitled to claims of the breadth of those they seek here. . . . [A]ppellants . . . *are not* seeking patent coverage of any purely mental process or any mental process coupled only with pencil and paper markings, but they *are* seeking coverage of the operation of a properly programmed general-purpose digital computer performing their process, as well as that of an analog device of the type disclosed. Appellants feel that they are entitled to a claim of the scope of claim 9 since, *when read in the light of the specification*, claim 9 does not cover a mental process.[48]

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[45] 159 *USPQ* 583 at 593.
[46] 162 *USPQ* 541 at 548.
[47] 162 *USPQ* 541 at 548.
[48] 162 *USPQ* 541 at 549.

Appellants in this case, by seeking to have limitations in their specifications *read into* claims which by their own admission encompassed nonstatutory subject matter[49] (rather than expressly incorporating the limitations into the claims), sought to invoke a rule of claim construction which equity has imposed on courts trying infringement cases. In the CCPA, however, the reason for this rule does not exist:

> There are quite sound reasons why, in an infringement suit on an issued patent, courts may sometimes "interpret patent claims in the light of the specification" so as to protect only that phase of the claimed invention that constitutes patentable subject matter and thus do justice and equity between the parties. However, this court has consistently taken the tack that claims yet unpatented are to be given the broadest reasonable interpretation consistent with the specification *during the examination of a patent application* since the applicant may then *amend* his claims, the thought being to reduce the possibility that, after the patent is granted, the claims may be interpreted as giving broader coverage than is justified.[50]

The court upheld in *result*[51] the Board of Appeals decision against the patentability of claim 9:

> Inasmuch as claim 9 . . . reads on subject matter for which appellants do not seek coverage, and therefore tacitly admit to be beyond that which "applicant regards as his invention," we feel that the claim fails to comply with 35 U. S. C. 112 which requires that "(t) he specification shall conclude with one or more claims particularly pointing out and distinctly claiming *the subject matter which the applicant regards as his invention.*" . . . This is true notwithstanding appellants *disclosure* of a *machine-implemented* process.[52]

Claim 17, although considerably narrower than claim 9, was also disallowed because:

> "Generating physical representations" appears to us to be broad enough, *even* when read in the light of the specification, to encompass pencil and paper markings which a mathematician might make in documenting or recording his mental calculations.[53]

By *inference* Judge Baldwin suggested that the inclusion of otherwise pro forma limitations in claims reading on mental processes might render such claims allowable:

> We find no express limitation in claim 9 which, even when interpreted in the light of the specification, would support the

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[49] See 162 *USPQ* 541 at 550.

[50] 162 *USPQ* 541 at 550.

[51] "The board did not specifically comment in regard to the 101-112 rejection of the process claims, apparently affirming the examiner. See Rule 196 (a), United States Patent Office Rules of Practice." 162 *USPQ* 541 at 546.

[52] 162 *USPQ* 541 at 550.

[53] 162 *USPQ* 541 at 551.

> conclusion that the claim is limited to a "machine process" or "machine-implemented process."[54]

An obvious alternative, and one which the Patent Office might feel bound to allow in cases where the examiner could not contrive a better mode of description, would be to negatively limit the accused claim to a "non-mental process."

In discussing the apparatus claims in *Prater,* Judge Baldwin was careful to distinguish between "mental *steps*" in *process* claims and means-plus-function *elements* in *apparatus* claims, thereby avoiding conceptual difficulties which have apparently misled some courts in their analysis of "mental steps" cases:

> We do not perceive of any "mental steps" issue in regard to apparatus claim 10. It is quite clear that claim 10, in typical means-plus-function language as expressly permitted by the third paragraph of 35 U. S. C. 112, does not encompass the human being as the "means" or any part thereof. . . . The pencil, paper, and ruler—referred to by the board in regard to 35 U. S. C. 102—do *not* anticipate the claimed "means" since the former additionally require human manipulation.[55]

## *The Net Effect of* Prater

Judge Smith's opinion distinguished *Prater* from *Abrams* on the ground that Abrams had failed to disclose in his specification a means for performing the claimed process without requiring any steps to be performed in the human mind.[56] This distinction, in essence, placed an additional restriction on the applicant seeking to avoid a "mental steps" rejection of method claims.[57] Judge Baldwin's opinion went further in requiring that process claims subject to a "mental steps" rejection be narrow enough to avoid *literally reading* on a "mental process augmented by pencil and paper markings."[58] Seemingly, this additional requirement renders moot the question of whether the *Abrams* "rules" are valid, but in no way attenuates the reasonableness of the requirement that method claims be supported by the disclosure of an independently operable device for executing the various steps of the claimed process. In the words of Judge Baldwin:

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[54] 162 *USPQ* 541 at 550.

[55] 162 *USPQ* 541 at 551.

[56] 159 *USPQ* 583 at 590.

[57] Namely, that the applicant specifically disclose an apparatus capable of carrying out the various steps of the claimed process.

[58] 162 *USPQ* 541 at 550.

> *Disclosure* of apparatus for performing the process without human intervention may make out a prima facie case that the *disclosed* process is not mental and is therefore statutory. . . . [In *Prater*], of course, the patentability of the *disclosed* process is not in question; but that is not to say that the *claims* delineate a patentable process.[59]

The net effect of the two *Prater* opinions would appear to be that, to avoid a "mental steps" rejection, the applicant should *both*: (1) *disclose* statutory means for independently executing the process, and (2) *claim* the process narrowly enough to read only on statutory subject matter.

## Prior Case Law Viewed in the Light of *Prater*

### *General Comments*

It is believed that, to have a full understanding of the relative significance of the *Prater* case, one must appreciate the extensive chain of case law which leads up to this important decision. Without a knowledge of the scope of the "mental steps" doctrine as it existed before *Prater*, the doctrine's scope after *Prater* is not clear.

Further, a consideration of the most important predecessors to *Prater* should serve to weed out those cases which are no longer reflective of what the law is, while at the same time pointing out those cases which complement, anticipate or amplify the decision in *Prater*.

A relatively small number of cases have been selected for analysis from a field of nearly one hundred patent law cases which purport to relate in some manner to the "mental steps" doctrine. In discussing each case, special attention has been given to the particular claim language involved, to the substance of supporting disclosure, to the relationship between the claim language and the supporting specification, to the relative breadth of the claim language, to the court's reasons for allowing or disallowing the claim in question, and the degree to which the outcome and rationale of the case are consonant with *Prater*. It is hoped that the practitioner might through this mode of analysis obtain at least an intuitive feeling for the sort of process claim which might be deemed to contain a "mental step" and for what is necessary to avoid a rejection on this ground in view of *Prater*. It must be remembered that *Prater* does not purport to render "mental steps" patentable, nor does it purport to redefine what a "mental step"

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[59] 162 *USPQ* 541 at 548, n.22.

is in a particular context. Accordingly, a considerable amount of prior case law remains important and must be looked to as technology progresses and new fact patterns emerge.

### *Selected Pre-*Prater *Cases Analyzed*

The case which comes closest to being the first real "mental steps" case is probably *Don Lee, Inc.* v. *Walker.*[60] This was an infringement suit involving claim 1 of the Walker patent 1,575,239. Claim 1 contains the following language:

> 1. A method of counterbalancing an engine main shaft . . . which consists in:
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> (a) treating each half of the shaft as a cantilever . . . ,
> (b) determining the bending moment of the cantilever . . . and,
> (c) counteracting this bending moment by weights of such mass . . . that their bending moment will be equal and opposite to that of the [masses] to be balanced.

The Walker patent disclosed no specific apparatus for actually carrying out the steps of the claimed process. Further, as was stated during the protracted trial of the issues, the underlying mathematical manipulations were known to those skilled in the art well before Walker's date of "conception." In *Prater,* however, the applicants discovered an admittedly *new* mathematical phenomenon and *inventively* implemented this discovery by means of an electromagnetic apparatus capable of operation without human intervention.[61]

In holding Walker's claim 1 invalid, the court presented its conclusion in the following language to which Judge Smith referred[62] as the genesis of the "mental step" doctrine:

> We conclude that appellee's patent claim No. 1 for a method of computation for determining the position and weights necessary to counterbalance distortion in a Sharp shaft with an eight-cylinder engine V-type motor is not patentable. We agree with appellant's contention that such a computation is not a "new and useful art, machine, manufacture or composition of matter" within the meaning of section 4886, Rev. Stat. (35 U. S. C. A. § 31) [antecedents of 35 U. S. C. 101]. *Neither is it novel,* being merely a special case already covered by a general case, or formula, and also by the method of

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[60] 14 *USPQ* 272 (9th Cir. 1933).
[61] See note 31 *supra* and associated text.
[62] 159 *USPQ* 583 at 591.

> graphic statics which gives a solution without formula or computation, forces being represented by the length of lines and their direction being parallel to the action of the force, the solution being indicated by the length and direction of the line indicating the resultant force.[63]

Even this is not pure "mental step" language as will be developed in many cases which purport to follow *Don Lee*; rather, it comes closer to saying that one cannot obtain a process patent on a mathematical formula (as opposed, it might be noted, to a new and narrowly claimed algorithm supported by the disclosure of an independent apparatus capable of executing it).

A few months after the Ninth Circuit handed down its decision in *Don Lee,* the CCPA heard the case of *In re Bolongaro,*[64] wherein the court affirmed the examiner's rejection of the following claim:

> 8. Method of producing a printed publication for manuscripts which comprises:
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> (a) counting the letter spaces . . . ,
> (b) dividing the sum of said letter spaces by the number of lines . . . ,
> (c) counting the letter spaces of each paragraph . . . ,
> (d) reducing these . . . spaces . . . to hypothetical lines of printed matter . . . ,
> (e) allocating space in the pages to be printed in accordance with the number of hypothetical lines . . . ,
> (f) setting the type of the printed publication . . . ,
> (g) producing printed copies of the printed publication. . . .

The examiner rejected the claim on the ground that "even if the claim referred to patentable subject matter, the refinements disclosed by applicant were only such as a good mathematician would supply without invention."[65]

The court knew that something was wrong with the claim but it could not tell exactly what, so, it simply stated that applicant's method

> . . . approaches that line of cases in which the subject matter has been held not patentable, and which has been referred to as including a method of transacting business, a form of contract, a mode of procedure, a rule of conduct, a principle or idea, or a permissive function, predicated upon a thing involving no structural law.[66]

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[63] 14 *USPQ* 272 at 285.
[64] 16 *USPQ* 295 (CCPA 1933).
[65] 16 *USPQ* 295 at 296.
[66] 16 *USPQ* 295 at 297.

The examiner's rejection was affirmed with the following rather lukewarm statement:

> No case has been found exactly in point. However, the following authorities refer to instances wherein subject matters somewhat akin to that in issue here were involved: Hotel Security v. Lorraine Co., 160 Fed. 467; Library Bureau v. Massey Co., 140 Fed. 380; Hocke v. New York Central, 122 Fed. 467; Berry v. Winkoop, 84 Fed. 646; United States Credit System Co. v. American Credit Co., 59 Fed. 139; Guthrie v. Curlett, 10 F. 2d 725.[67] [None of which seems to pertain.]

In this case the specification did not call for any specific apparatus for performing the steps of the claimed process, but directed the process toward performance by a human typesetter presumably capable of "counting," "dividing," "reducing," "allocating," and "setting." Clearly, process steps calling for the "counting" and "dividing" of quantities are readable on the operation of a ("properly programmed") human mind, and in the absence of limiting claim language and a disclosed apparatus operable to perform the steps without the intervention of a human mind, the *Bolongaro* claim would be unpatentable under the *Prater* doctrine.

Starting in 1944, a surge is discernible in the number of "mental steps" cases before the Patent Office Board of Appeals and the courts. The first of these was *Ex parte Toth*.[68] Claim 4 of the Toth application, as originally filed with the Patent Office, read substantially as follows:

> 4. In the method for determining the pump pressure of an oil well . . . the steps of:
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> (a) introducing . . . a small diameter tubing . . . ,
> (b) applying a gas pressure to said small diameter tubing . . . ,
> (c) causing said gas to balance the head of the well . . . ,
> (d) *determining* the well pressure . . . by *correcting* the . . . indicated pressure . . .

In affirming the examiner's action, the Board of Appeals noted that

> . . . the rejection of Claim 4 . . . is based mainly on the Harnes apparatus in view of the alternative procedure set forth [in] . . . the Walker patent. This ground of rejection is deemed to be sound and will be affirmed. In addition it may be said that the "correcting said indicated pressure" in Claim 4, and the "determining the well pressure" . . . [do] not constitute steps of a patentable process. These acts are purely mental and hence do not come within the definition

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[67] 16 *USPQ* 295 at 298.
[68] 63 *USPQ* 131 (P.O. Bd. App. 1944).

> of "art" as given by Robinson in his work on patents or by the court in [previously decided cases] . . . , therefore such alleged steps can be given no patentable weight. Claim 4 is also rejected as defining nothing more than the function of a specific apparatus.[69]

Thus it is seen that even in this frequently cited case the Board did not rest its decsion solely on a "mental steps" rejection but depended, at least in part, on the additional grounds of prior art and "function of the apparatus."

The Toth application ultimately matured into patent 2,360,742. It is apparent from page 3 of the Toth specification that the steps of "determining" and "correcting" were to be executed either mathematically or graphically by a trained operator, so that, here again, the claims were not limited to a "non-mental" process and no specific independent apparatus was shown for performing the accused steps of the process.

Later in 1944 the Ninth Circuit Court of Appeals, in the infringement action of *Halliburton Oil Well Cementing Co.* v. *Walker,*[70] held the method claims of patent 2,209,944 invalid because their "novelty lay only in the performance of certain mental steps."[71] Claim 2 from this patent is representative of the process claims litigated:

> 2. The method of determining the unknown location of an obstruction in a well . . . which consists in:
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> (a) creating an acoustical impulse . . . to produce echoes . . . from the unknown obstruction;
> (b) observing the lapse of time between the arrival at a predetermined point of the echoes . . . to thereby determine the velocity of the pressure wave through the . . . well . . . ; and
> (c) measuring the lapse of time between the creation of the pressure impulse and the arrival at said predetermined point of the echo from the unknown obstruction.

In criticizing this and other similar claims in the case, the court apparently intended by its holding to make a blanket condemnation of terms which are quite frequently encountered in the prosecution of computer patents:

> The steps involved are described in the claims by the following descriptive words: "determining," "registering," "counting," "observing," "measuring," "comparing," "recording," "computing."[72]

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[69] 63 *USPQ* 131 at 132.
[70] 64 *USPQ* 278 (9th Cir. 1944).
[71] 64 *USPQ* 278 at 282.
[72] 64 *USPQ* 278 at 282.

The litigated patent in this case was a division of parent patent 2,156,519 which showed an apparatus capable of producing a graphical representation of the time relationship between the acoustical impulse and the two echoes, from which the depth of the obstruction might be determined. The court evaluated the method claim in issue in the following terms:

> In substance, Walker's method here claimed consists in setting down three knowns in a simple equation and from them determining or computing an unknown. The three knowns are: (a) the distance from the well head to the [predetermined point]; (b) the length of time it takes an echo to return from that [predetermined point]; and (c) the length of time it takes an echo to return from the [obstruction]. From these three knowns can then be determined the distance of the [obstruction] from the well head.[73]

The court held specifically that "these mental steps, even if novel, are not patentable"[74] (citing *Don Lee*), and went on to develop its reasoning along the following lines:

> It must be remembered that this is purely a method patent. No apparatus is claimed. Given an apparatus for initiating an impulse wave in a well and a means for differentiating between and for recording echoes returned from obstructions in it, anybody with a rudimentary knowledge of arithmetic will be able to do what Walker claims a monopoly of doing. If his method were patentable it seems to us that the patentee would have a monopoly much broader than would the patentee of a particular apparatus. To sum up the matter, we think Walker's apparatus patent 2,156,519 gives him all the protection his inventive genius entitles him to.[75]

The reasoning in *Halliburton* is deceptively similar to that of Judge Smith's opinion. The *Halliburton* court felt that the inventor should not be able to obtain a monopoly on a particular apparatus in a first patent, and later, in a second patent, obtain a monopoly on the method of using that apparatus. This, however, is essentially the same as saying that the inventor should be denied a patent for a method because it describes the mere "function" of the apparatus." Such a ruling, of course, would be obnoxious to the doctrine of *Tarczy-Hornoch*.[76] Nonetheless, the *result* in *Halliburton* would probably be the same under the doctrine of *Prater,* although the reasoning would be different: Applying *Prater,* the method claim would be invalid because apparatus is disclosed in the specification only for *gathering data,* while no apparatus is disclosed for *processing* this data so as to

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[73] 64 *USPQ* 278 at 282.
[74] 64 *USPQ* 278 at 282.
[75] 64 *USPQ* 278 at 283.
[76] See note 10 *supra.*

actually determine the depth of the unknown obstruction—this function was to be performed in *Walker* (1944) by a human being trained in basic mathematics. Thus, Walker prima facie *intended* that his claims be sufficiently broad to encompass execution by a human brain aided by pencil and paper.

The next principal "mental steps" case to be brought before the CCPA was *In re Heritage*,[77] wherein the subject matter of the following claim was deemed to be unpatentable:

> 1. The method of producing a porous coated fiber board . . . which comprises:
>
> (a) coating a series of specimens of the board . . .
> (b) testing the coated series to find the critical usage . . .
> (c) determining a noise reduction coefficient effected by the coated specimens of the series . . .
> (d) selecting those usages which are within [a] variable range of sound reduction coefficients . . .
> (e) applying the coating composition to said board at a usage within the range selected period . . .

According to the specification in the *Heritage* application, the process steps of "testing," "determining" and "selecting" were to be performed by a trained operator; no specific apparatus was disclosed for carrying out these steps. The court noted that claim 1 is "essentially directed to a purely mental process of making a selection of the amount of coating material to be used in coating a porous fiber board in accordance with a predetermined system it does not define patentable subject matter."[78]

Thus, although no art was cited against claim 1, the court sustained the examiner's rejection simply because "such purely mental acts are not proper subject matter for protection under the patent statutes as held by the tribunals of the Patent Office (citing *Don Lee, Inc.* v. *Walker* and *In re Bolongaro*)."[79]

According to the reasoning in this case, the claim is improper because the subject matter underlying it—viz., steps performable (and in fact performed) by the "biological apparatus" known as the human brain—is per se unpatentable. This, in essence, is what the examiner in *Prater* sought to convey by his §101 rejection of the claims in that case.

After lying virtually dormant for a period of almost six years the

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[77] 66 *USPQ* 217 (CCPA 1945).
[78] 66 *USPQ* 217 at 220.
[79] 66 *USPQ* 217 at 220.

"mental steps" doctrine was revived with new vigor in the 1951 cases of *In re Yuan*[80] and *In re Abrams*.[81]

The appealed claim is the *Yuan* case was for:

> 9. A method of determining the exact air foil for certain desired aerodynamic characteristics comprising:
>
> (a) computing the pressure distribution . . . ,
> (b) converting the pressure distribution . . . into velocity distribution . . . ,
> (c) determining the air foil . . . corresponding . . . to optimum lift coefficient . . . ,
> (d) determining . . . necessary form parameters,
> (e) converting . . . [the] parameters into . . . coordinates . . . by means of the expression: x = 2 [cosh t]. (cos o) . . . .

In the specification the only apparatus which was shown was an air foil that constituted the resultant product of the alleged process; no apparatus was disclosed which was capable of independently executing the various steps in the process. Rather, all of the above steps were to be carried out by an operator in accord with certain mathematical formulae developed in the specification. The court stated that "all the so-called steps . . . are purely mental steps dependent upon the mathematical formula which is recited in, and constitutes the heart of, the claims."[82] "This court has deemed it to have been thoroughly established that purely mental steps do not form a process which falls within the scope of patentability as defined by statute."[83]

The court traversed the applicant's argument that numerous process patents were in existence which contained "mental steps," simply by observing: ". . . even if it should be found that patents covering purely mental steps have been issued, such action could not be regarded as controlling here."[84]

The court incorporated with approval the following language from *Patentability and Validity* by Rivise and Caesar:

> There are a number of decisions which hold that a process to be patentable must produce a change in the condition of matter [indicating a misconstruction of Cochrane], and that processes whose results can be apprehended only through the intellect are not patentable. As a result of these decisions it is considered to be well settled that processes involving mental operations and processes that merely produce a desired state of mind are not patentable. In this

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[80] 89 *USPQ* 324 (CCPA 1951).
[81] 89 *USPQ* 266 (CCPA 1951).
[82] 89 *USPQ* 324 at 326.
[83] 89 *USPQ* 324 at 327.
[84] 89 *USPQ* 324 at 329.

> category are included methods and systems for transacting business, methods of training animals, methods of solving problems, and rules for playing games.[85]

The authority cited above makes the following editorial statement in a latter section:

> The authors are of the firm opinion that there is no logical reason why certain processes which involve mental operations or which produce mental effects should not be patentable. . .[86]

It is interesting to note that claim 9 in this case reads very much like a "program," in that it is basically an algorithm for the problem of determining optimal air foil characteristics.

Here again the court was hesitant to rest its decision solely on the ground of "mental steps" and thus added (as did the Board of Appeals in *Prater*) the following basis for rejection:

> [We] sustain the holding of the Board of Appeals in the instant case that to be patentable the steps of an art or method . . . must be performed upon physical materials and produce some change in their character or condition (citing Cochrane v. Deener, 94 U. S. 780 at 788).[87]

The *Abrams* case, which was discussed extensively in Judge Smith's *Prater* opinion, has been one of the most frequently cited of all "mental steps" cases. The claim in that case read substantially as follows:

> 4. A method of prospecting for petroliferous deposits comprising:
>
> (a) sinking a number of boreholes . . . ,
> (b) sealing off each of said boreholes . . . ,
> (c) reducing the pressure in said borehole to a value substantially below atmospheric,
> (d) measuring the rate of pressure rise per unit area . . . ,
> (e) determining the rate of pressure rise in said borehole . . . ,
> (f) comparing the rates. . . .

The "measuring," "determining," and "comparing" of steps (d), (e) and (f) were shown in the specifications as being accomplished by a human operator, which is evidence of the relative breadth Abrams intended to have attributed to his claims. The operator observed a manometer and periodically recorded pressure changes. This information was then plotted by the operator on a graph. Graphs of several

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[85] Rivise and Caesar, *Patentability and Validity* (1936 ed.), p. 35.
[86] *Id.* at § 20.
[87] 89 *USPQ* 324 at 329.

boreholes were normalized and visually compared by the operator to obtain the desired results. In the words of the examiner:

> This mental process is indicated by such terms in the claims as "calculating" applied for instance to mathematically making certain computations from figures taken down from pressure observation, "comparing" applied to mere mental comparison of figures on a sheet, "converting" as related to mathematically calculating the flow data or pressure rise with respect to a standard reference pressure, "determining," applied for instance, to the reading of the pressure rise figures; "correcting" involving mere mathematical calculations. (Citing *Toth* and *Heritage*, and *Halliburton*.) [88]

The attorney for Abrams presented the now famous "rules" for the court's consideration; these may be summarized as follows:

> (1) If all the steps of a method claim are purely mental in character, then the method is unpatentable.
> (2) If there are some physical steps and some mental steps in the method claim, and if the point of novelty resides in a mental step, then the method is unpatentable.
> (3) If there are some physical steps and some mental steps in the method claim, and if the point of novelty resides at a physical step, then the method is patentable.[89]

In evaluating the "rules" proposed by Abrams, the court noted:

> From such examination of the decisions as we have been able to make, the suggested rules appear to accord with them, but . . . it is sufficient to determine whether or not the claims fall within proposition 3 upon which appellant relies. According to that rule, it must appear that there has been (a) an advance over the prior art and that (b) such advance or novelty resides in the physical steps set forth in the claims.[90]

The court went on to decide, however, that although the claim was apparently novel (no art had been cited against it), its novelty resided at mental steps (e) and (f), thus bringing the case within proposed "rule 2" which defined one class of unpatentable method claims.

Beyond reciting that Abrams' claim 4 was within "rule 2," the court failed to give substantive reasons as to exactly *why* the subject method was unpatentable, and apparently felt that the following statement was sufficient: "Citation of authority in support of the principle that claims to mental concepts which constitute the very substance of an alleged invention are not patentable is unnecessary. It is self-evident that thought is not patentable."[91]

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[88] 89 *USPQ* 266 at 268.
[89] See 89 *USPQ* 266 at 267.
[90] 89 *USPQ* 266 at 268.
[91] 89 *USPQ* 266 at 269.

At one point the *Abrams* court, at least implicitly, anticipated *Prater* by indicating that whether a particular method step was "mental" or not might be determined by looking at the supporting specification:

> We deem it proper to resort to applicant's specification as an aid in interpreting the steps of the claims. . . .[92] When the steps of the claims [in the instant case] are considered in the light of the explanation of their character so given, it seems that they are eliminated from the applicability of applicant's proposed rule 3 and fall within rule number 2.
>
> The *Halliburton* v. *Walker* case, *supra,* seems to us to be sound in its reasoning and directly applicable here.[93]

Probably one of the clearest illustrations of a proper application of the "mental steps" doctrine is the case of *Ex parte Clarke,*[94] which was before the Patent Office Board of Appeals in 1952. This case involved the following claim:

> 30. The method of matching an artificial eye with a natural eye of a person, which includes:
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> (a) assembling selected . . . parts into a . . . eye unit . . . ,
> (b) emplacing such unit in the eye socket . . . ,
> (c) comparing the artificial eye unit, so emplaced, with the remaining natural eye . . . ,
> (d) removing such unit . . . ,
> (e) reassembling the unit with . . . more closely matching . . . artificial eye parts, and . . .
> (f) re-emplacing such . . . unit in the . . . eye socket. . . .

The Board summarized the substance of the claimed method, and the examiner's rejection thereof, in the following terms:

> Claims 26 and 28-30 inclusive, are drawn to a method involving the steps of selecting sclera, iris and pupil parts and comparing with the remaining good eye of the patient, and making such further reselection of parts as necessary to match the coloration of the sclera, iris and pupil of the good eye . . . . These claims have been rejected on the ground that they do not satisfy the requirement of Section 4886 . . . [predecessor of 35 U. S. C. 101] as to patentable subject matter. It is . . . [the examiner's] position that such steps as selecting and matching are mental operations and that such mental operations are not subject to patent protection (citing *Abrams* and *Yuan*).[95]

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[92] 89 *USPQ* 266 at 270.

[93] 89 *USPQ* 266 at 271. The court also observed that: "In truth, the question of whether a step in a process is mental or physical seems to us to be one of fact rather than one of law and so should not be difficult of determination. . . ." P. 269.

[94] 97 *USPQ* 165 (P.O. Bd. App. 1959).

[95] 97 *USPQ* 165 at 168.

In sustaining the examiner's rejection the Board stated that:

> It is obvious that in selecting parts which appear to the eye fitter to be similar to the natural eye and in comparing them with the good eye to ascertain the accuracy of the selection, the effectiveness of the matching depends from the accuracy of the color sense of the eye fitter which is a mental attribute of such intangible character that its exercise is not, in our opinion, subject to patent protection. As stated in . . . Abrams . . . "It is self-evident that thought is not patentable."[96]

On petition for reconsideration[97] the Board was unpersuaded by the applicant's argument that the step of "comparing" was not at the point of novelty so as to bring the claim within "rule 2" of *Abrams:*

> If this mental step (matching the artificial eye with the natural eye) fails of perfection, the positive physical steps would, in our opinion, have little value since artificial eye patients are sensitive as to their appearance and would not want a mismatched artificial eye. We think the rejection of Claim 30 . . . was proper and will be adhered to.[98]

In order for this method to be patentable under the doctrine of *Prater,* applicant would have had to limit the breadth of his claims to a "machine-implemented" process and also disclose an apparatus capable of actually comparing the two eyes and indicating any significant degree of mismatch.

It is interesting to note that, although claim 30 was disallowed, the *Clarke* application matured into patent 2,634,423 which includes in claim 13 the following phrase:

> . . . and then *removing* such units and *substituting* other interlocked, *more closely simulating ones,* and *reattaching* the latter to the anchored support *until the closest simulation of the natural eye is produced.* (Emphasis added.)

Of passing interest is the unreported case of *Ex parte Rust and Clewell,*[99] from which ultimately issued patent 2,639,615 containing only apparatus claims. Certain method claims were finally rejected under the "mental steps" rule. Although there was an apparatus disclosed for partially performing the method, the intervention of a human operator was required at one point. On appeal, applicant showed how the missing link could be performed automatically by

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[96] 97 *USPQ* 165 at 169.
[97] 97 *USPQ* 173 (P.O. Bd. App. 1952).
[98] 97 *USPQ* 173 at 173.
[99] Appeal No. 28,750 (P.O. Bd. App., May 29, 1952).

then existing apparatus, but the Board of Appeals held that it was too late for them to consider this additional showing, and the examiner was affirmed in his "mental steps" rejection.

A case which is clearly in anticipation of *Prater* is *Ex parte Monroe,*[100] wherein the Patent Office Board of Appeals considered the following claim:

> 3. The method of producing a continuously flowing stream of substantially constant predetermined composition composed of a mixture of two . . . fluid components . . . which comprises,
>
> (a) establishing and maintaining a first fluid stream . . . ,
> (b) continuously adding to and mixing with said first stream a second stream comprising said other component to form a mixed stream,
> (c) passing a substantially constant flow of said mixed stream through a restriction to produce a pressure drop . . . ,
> (d) measuring the magnitude of said pressure drop, and
> (e) regulating the rate of addition of said second stream in accordance with the measured value of said pressure drop to maintain the relative proportions of said components. . . .

No references were cited against any of the claims in the case.

In discussing the application and the examiner's rejection of claim 3, the Board observed:

> Appealed claim 3 describes a process that *may be carried out by the instrumentalities disclosed in the present application.* The allowed *claims are directed to such instrumentalities.* It is the examiner's view that the appealed claim requires a mental operation by reason of the step of "measuring" and the step of "regulating" in accordance with the measured value. The examiner accordingly reached the conclusion that the claim was directed to nonstatutory processes (citing *In re Abrams* and *In re Yuan* in support of his rejection). (Emphasis added.) [101]

The Board then considered a modified form of rejection proposed by the examiner, viz., that

> . . . [while] the claimed process can be carried out wholly by means of the instrumentalities disclosed by appellant and accordingly no mental steps are essential . . . , it is asserted that the claimed process can be carried out by other instrumentalities which may include, at least in part, manual manipulations. These manual manipulations might include a situation where an operator regulated a valve

[100] 105 *USPQ* 376 (P.O. Bd. App., 1955).
[101] 105 *USPQ* 376 at 377.

> supplying one of the components of the mixture in accordance with the reading on a differential pressure instrument.[102]

In response to this argument the Board concluded:

> We do not believe that the step of "measuring" as required in the claim on appeal is in itself a wholly mental step which requires condemnation of the claim. It is commonplace to allow claims directed to processes of compounding mixtures wherein the quantities of the various ingredients are stated in terms of ratios and it is apparent that in every such situation measurements must be made of such quantities in order to carry out the compounding process.[103]

Considering all of the facts presented in this case the Board apparently felt that the "measuring" step was either a physical step or, in the context of the particular application, a sufficiently narrowed mental step (by virtue of structure implicit in the claim language).

The resultant Monroe patent 2,707,964, which issued May 10, 1955, is illustrative of the sort of supporting specification which would be sufficient under *Prater* to successfully avoid a "mental steps" rejection.

Beginning with the 1959 case of *Ex parte McNabb,*[104] a trend is noticeable in Board of Appeals opinions toward a more liberal treatment of process claims which would previously have been condemned as readable on "mental steps." In *McNabb,* claim 14 was selected as indicative of those claims in the case which had been rejected by the examiner:

> 14. In a method of locating defects in the structure of . . . cylindrical wooden objects . . . the steps of:
>
> (a) positioning a source of radioactive energy . . . ,
> (b) passing the radioactive radiation therethrough . . . ,
> (c) exposing a film to the radiations that have been passed through said object . . . ,
> (d) reading said film with a densitometer to ascertain the optical densities . . . ,
> (e) plotting the said optical densities . . . ,
> (f) ascertaining deviations from the norm of the curve . . . ,
> (g) orienting said deviations. . . .

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[102] 105 *USPQ* 376 at 377. Were the examiner's position upheld, applicants for process patents would have faced quite a dilemma (recalling that, at this point in time, Tarczy-Hornoch had not yet been decided): In order to show that the process should not fail because of "mere function of the machine" the applicant would have had to show that it could be carried out by other instrumentalities than were shown in the specification. He could either go to the expense of designing and testing another wholly different embodiment of the invention, or he could hypothecate a human operator to go through the whole process by hand. If he chose the latter course, he would have opened himself to the objection that his claims read on a mental process.

[103] 105 *USPQ* 376 at 377.

[104] 127 *USPQ* 456 (P.O. Bd. App. 1959).

Although considerable activity, both decisional and physical, was required on the part of a human operator in the performance of steps (e), (f) and (g), the Board refused to sustain the examiner's rejection:

> We have carefully considered the examiner's position but are not in agreement therewith. The step of reading the film with a densitometer is obviously not a mental step since the densitometer is a piece of apparatus which functions to measure the density of the film by its inherent mode of operation. Plotting the optical densities . . . likewise is not more of a mental step than reading a thermometer or gauge and plotting the values therefrom. Ascertaining the deviations from the norm of the curve can obviously be done by means of a French curve and a pair of dividers. The deviations, if any, from the norm are clearly evident from the graph plotted from the densitometer data. Orienting the deviations is merely . . . aligning the graph in its proper position, as indicated by the graph itself. None of these steps are purely mental or interpretive mental steps.[105]

The Board apparently laid down the general rule that the mere fact a human operator must provide a *control function* vis-à-vis a claimed process does not per se render it unpatentable.[106] Specifically, the Board was of the opinion that:

> Any method or step in a method which can be manually performed and requires the use of the human eyes for detection or determination of any condition, such as temperature, pressure, time, etc., and/or the use of the hands for the purpose of manipulating, such as turning off or on or regulating a given device in a certain manner or at a certain time, etc., to produce a certain result necessarily involves the human mind and hence can be classed as a mental step. Such steps, however, are not purely mental or interpretive mental steps and are not the kind which are prohibited by the decisions relating to purely mental steps.[107]

While this reasoning seems to square with the *broad definition* of "mental steps" adopted by the CCPA in *Prater,* i.e., one which is capable of being "performed through the mind by the use of aids such as pencil and paper (and, implicitly, the hands, the eyes, etc.),"[108] it would appear to be inconsistent with the *Prater requirement* that such "mental steps" when claimed must be supported by the disclosure of a specific apparatus capable of independently performing this step.[109] Viewed in the context of the supporting specification which the

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[105] 127 *USPQ* 456 at 457.

[106] However, this sort of reasoning might well run afoul of Judge Baldwin's distinction between mental *steps* in process claims and means-plus-function *elements* in apparatus claims. See note 55 *supra* and the associated textual material.

[107] 127 *USPQ* 456 at 458.

[108] 159 *USPQ* 583 at 593.

[109] See 159 *USPQ* 583 at 590.

applicant provided in this case (see the McNabb patent 2,962,591), it is apparent that the accused steps might be placed more properly toward the "physical" rather than the "mental" end of the hypothetical "spectrum" alluded to in *Prater*.[110]

Patent 2,973,472—Egan issued after the applicant successfully appealed a "mental step" rejection of method claims directed to the graphical processing of data by an operator. The Board of Appeals in *Ex parte Egan*[111] held the following claim—which has been extensively edited[112] so as to amplify its actual content—to be directed to a patentable process:

> 1. In the dip meter logging of a well bore . . . (wherein a first chart containing data representative of apparent depth and azimuth of three boreholes is produced and analyzed through known but difficult techniques requiring a trained individual) the method of rapidly and easily obtaining the values of the true dip and the true azimuth . . . of a subsurface strata . . . by physical manipulation without the use of a mechanical model and without complicated calculations, which comprises:
>
> (a) plotting . . . values . . . on . . . coordinate axes of said first chart . . . ,
> (b) drawing parallel to said coordinate axes intersecting lines from the plotted values . . . ,
> (c) transferring said values to a second chart . . . ,
> (d) drawing connected vertical and horizontal lines . . . on said second chart . . . and,
> (e) obtaining directly from the point of termination of said connected lines on said second chart values of true dip and true azimuth . . . of said strata.

In explaining the objective of the invention, the Board used language which those supporting the patentability of computer programs would certainly deem applicable to their situation:

> The objective of the present case was to devise a way to restrict the efforts of the highly skilled person to that portion of the process claimed down to interpreting the record data (that is, the known process which is parenthetically summarized in claim 1 above). After all of the interpretations necessary have been made, the latter part of the method was devised to enable a person lacking adequate skill to carry out the prior methods of determining the actual azimuth and dip to carry out the instant modified method and thus relieve the person of high skill from tedious detailed work, to do types of work more commensurate with his talents.[113]

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[110] See 162 *USPQ* 541 at 548, n.22.

[111] 129 *USPQ* 23 (P.O. Bd. App. 1960).

[112] As can be seen from the Egan patent, claim 1 occupies some 58 lines of one column.

[113] 129 *USPQ* 23 at 24. But see Judge Baldwin's analysis, note 55 *supra* and associated text.

In terms of the computer art: The skilled worker, or "user," collects raw data and compiles it into a standardized format which may be easily interpreted by the unskilled worker or "computer." The unskilled worker is in effect *programmed* by the teachings of the Egan patent to obliviously *process* the formulated data and to graphically generate an *output* which is meaningful and useful to the skilled worker. As stated by the Board of Appeals:

> This portion of the process, in other words, *gives instructions on how to proceed in solving this problem in solid geometry by simple acts of the unskilled worker* on a precalculated chart so as to give a correct answer, without the necessity of this worker understanding the mathematical process involved or without understanding or training in subsurface geology. (Emphasis added.) [114]

The Egan patent has for its principal object essentially the same end sought to be achieved through the creation of inventive computers and inventive programs for use therewith:

> It is apparent from the preceding that the process as claimed has as its useful result the relieving of highly skilled workers of tedious time-consuming work thus relieving them for type of work more consonant with their degree of skill and relegating the time-consuming detail work to ones of lesser skill.[115]

In replying to a "computer program" argument posed by the examiner, the Board stated:

> As to the latter portion of the claim [steps (a), (b), (c) . . . etc.], it is the examiner's view that it is but a mathematical procedure that is not patentable since a process or mathematical computation is not embraced by the statute . . . [W]e are of the opinion . . . that the remainder of the claim is not a method of making a mathematical computation. In arriving at this conclusion, we have considered the analogy that the examiner has presented . . . . We agree that the process under consideration is properly analogous to a method of operating a computer, since the charts employed are quite analogous to a preconstructed computer.[116]

The charts which the skilled worker prepared (shown as figures in the Egan patent) were viewed by the Board as *tools* or *apparatus* for use in performing the method claim:

> The precalculated charts in the instant case can be looked upon, as the examiner has indicated, as analogous to a calculating machine. They are undoubtedly a manufacture . . . . Thus under the provision of this particular statutory section [35 U. S. C. 100 (b)], the claims before us each define a statutory process of using a machine or manufacture developed by applicant in a new way.[117]

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[114] 129 *USPQ* 23 at 25.
[115] 129 *USPQ* 23 at 25.
[116] 129 *USPQ* 23 at 26.
[117] 129 *USPQ* 23 at 26.

While the Board in this case looked to the specification for an apparatus, it would seem to have demanded a significantly different relationship between the apparatus, the operator, and the claims from that defined in *Prater.*

The Board in this case was apparently led astray by a combination of misplaced emphasis on the "rules" of *Abrams* and the appellant's statement in its brief that:

> . . . The mental and mathematical procedures involved in the formulation of the [precalculated] charts used in the claimed method represent an act precedent to the actual carrying out of the claimed method and so should not be considered.[118]

In adopting this analysis as its own, the Board failed to consider the steps of the process which were to be carried out by the *unskilled* worker. These steps were not supported in the specification by an independent apparatus, but read only on the graphical manipulations executed by the unskilled operator. While means-plus-function elements in *apparatus* claims are said *not* to read on human operations,"[119] in this case the Board was considering steps in a *process* claim, which are controlled by significantly different rules. Accordingly, in view of *Prater,* the validity of the Egan patent is highly suspect.

The case of *Ex parte Bond*[120] built upon the foundation provided by *McNabb*[121] and *Egan.*[122] Claim 10 of the subsequently issued Bond patent 3,033,287 is illustrative of the appealed process:

> 10. A method for recovering oil from subsurface geological formations comprising:
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> (a) collecting . . . samples,
> (b) removing . . . gases from said samples,
> (c) quantitatively and qualitatively analyzing said gases for . . . amounts of constituents . . . ,
> (d) correlating . . . the amount of said constituents . . . ,
> (e) drilling . . . well (in indicated) region. . . .

An inspection of the disclosure in the Bond patent reveals that the step of "correlating" is taught as being carried out by a human operator. Citing *Abrams* and *Halliburton* (as well as prior art against other steps in the process), the examiner rejected the claims as readable on a mental process. The Board, however, disagreed:

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[118] 129 *USPQ* 23 at 26.
[119] See note 55 *supra* and associated text.
[120] 135 *USPQ* 160 (P.O. Bd. App. 1961).
[121] 127 *USPQ* 456 (P.O. Bd. App. 1959).
[122] 129 *USPQ* 23 (P.O. Bd. App. 1960).

> Since the claims are for a novel and unobvious combination, the examiner's premise, that the *only* novelty in the process is a mental operation, is not correct. This Board has recently considered this type of rejection in *Ex parte McNabb* . . . and *Ex parte Egan,* with the conclusion that certain steps such as reading a value, plotting data, etc., are not purely mental or interpretive and are not the kind which are prohibited by decisions relating to purely mental steps.[123]

Viewed in the light of the *Prater* decision, the Bond patent would appear to fall short of the requirement that, in order to be steps in a process which is at least prima facie patentable,[124] so-called "mental steps" must be shown in the specification as being carried out by an independent apparatus; they must be capable of being executed with the apparatus disclosed but without human intervention.

Finally, in *Ex parte Tripp,*[125] the Board decided a case not greatly dissimilar in form from that considered by the CCPA in *Prater.* The following claim was appealed from a "mental steps" rejection:

> 1. A method of automatically controlling a machine . . . by a drive mechanism . . . comprising the steps of:
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> (a) deriving from a reference signal a signal related to . . . the difference between the reference temperature and the actual temperature . . . ,
> (b) inserting into said drive mechanism a motion varying in magnitude with said . . . signal.

In overruling the rejection, the Board submitted the following analysis:

> . . . each of the claims recites manipulative steps that do not describe the operation of the human brain. Consequently, these claims are not drawn completely to a mental operation and in the light of *In re Abrams* . . . should be evaluated in accordance with the manipulative steps recited therein.[126]

The opinion went on to note *incidentally* that the application disclosed apparatus for executing each step of the claimed process. The Tripp application ultimately issued as United States patent number 3,136,218.

While there is a vast amount of prior case law relating to the patentability of processes which include "mental steps," it is felt that the cases selected for analysis above are representative of: (1) the type of technological situation in which "mental steps" are frequently encountered; (2) the relative breadth of the claim language typically

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[123] 135 *USPQ* 160 at 162.
[124] See 162 *USPQ* 541 at 548, n.22.
[125] 141 *USPQ* 918 (P.O. Bd. App. 1963).
[126] 141 *USPQ* 918 at 919.

employed in these cases; (3) the various possible relationships between the "mental steps" in process claims and the means shown in the specification for performing these steps; and (4) the rationale heretofore invoked by the courts and the Patent Office Board of Appeals in evaluating "mental steps" cases. For the reader who desires to pursue a more exhaustive investigation of prior case law, a number of relatively recent "mental steps" cases have been collected in the footnote.[127]

As is illustrated by many of the cases reviewed above, "mental steps" (e.g., "selecting the greatest value") in a claimed process may generally be executed *either* by some electromechanical device *or* in the human brain. When an electromechanical means is actually employed to perform such a process step, it operates in accord with certain defined principles of physics. On the other hand, when a biological means is used to execute the process step, it operates according to certain unique and unknown principles of nature. Both "means" have the same *function* in a given application and both "means" achieve the same *result*. What the pre-*Prater* cases failed to meaningfully enunciate is that, so far as the *claimed process* is concerned, *literal* infringement exists when a "black box" is provided for performing the process step in question—regardless of whether the function of the black box is carried out by an inanimate device or by the human brain.

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[127] In re Lundberg and Zuchlag, 113 *USPQ* 530 (CCPA 1957) (geophysically interpreting a record is mental operation which cannot impart patent ability to claim); In re Venner, 120 *USPQ* 192 (CCPA 1958); Ex parte Read, 123 *USPQ* 446 (P.O. Bd. App. 1943) (the act of correlating the reading of a first scale with the reading on a second scale is a purely mental act); Ex parte Kahn and Offenhauser, 124 *USPQ* 511 (P.O. Bd. App. 1959) (the mere recitation of that which is conceded to be a mental step does not render an otherwise statutory method unpatentable); Ex parte Moser, 124 *USPQ* 454 (P.O. Bd. App. 1959); Ex parte Silverstein, 125 *USPQ* 238 (P.O. Bd. App. 1959); Ex parte Jenny, 130 *USPQ* 318 (P.O. Bd. App. 1960) (the mathematical solution of problem is a mental rather than physical step); Ex parte Garett, 132 *USPQ* 514 (P.O. Bd. App. 1961) (the steps of measuring information related to the deformation of resilient element and determining the load on bolt from known deformation-load characteristic of the element are not the type of purely interpretive or discretionary mental steps that have been found objectionable in method claims); Lyman v. Ladd, Commissioner of Patents, 145 *USPQ* 369 (Ct. App. 1965) (". . . naked ideas, independent of the means to carry them out, are not patentable"); Ex parte Masten, 150 *USPQ* 473 (P.O. Bd. App. 1966) (a process claim which was directed to a traffic light control rejected on an insufficient disclosure); Ex parte Appeal No. 470-27, 152 *USPQ* 74 (P.O. Bd. App. 1966) (a method claim directed to plurality of business steps involving judgment and calculation is unpatentable); Ex parte Luigs, 153 *USPQ* 677 (P.O. Bd. App. 1966); In re Jones, 153 *USPQ* 77 (CCPA 1967) (method claim not rendered invalid because one step of "addition" is a mental step).

It is said that the human brain is the ultimate information processing system and that this biological apparatus represents a goal toward which modern computer technology, at least implicitly, strives. As science exponentially advances, man-made simulations take on characteristics of the biological model faster than patent practitioners are able to contrive words to distinguish the two. Perhaps in the end no better differentiating nomenclature will be available than "machine-implemented" or "non-mental."

## Conclusion

### *A Review*

As was briefly indicated earlier in this article, the *Prater* case has not suddenly supplanted a large body of pre-existing law. Although the Greek mythologists managed to have Zeus' daughter, Athena, spring fully grown and fully armed from her father's forehead, such are not the ways of jurisprudence. Rather, the *Prater* opinions provide the insight necessary to discern order in what had previously been an almost chaotic body of law. There has always been an intuitive feeling on the part of the courts that a would-be inventor should not be allowed to monopolize a defined course of human thought and/or human conduct—no matter how novel.[128]

Unfortunately, the true significance of this seemingly straightforward proposition has been obscured by a maze of closely related but ill-conceived patent law notions. These notions, each of which may be traced to dubious origins, have taken various forms: At one point in time it was said that processes were not patentable at all. Later, after processes were elevated to the status of patentable subject matter, a practice evolved of rejecting or invalidating process claims if the process they described did not operate on physical substances.

Similarly, process claims which defined the function of a disclosed apparatus were deemed unpatentable. Compounding the confusion

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[128] Curiously, however, courts have had little difficulty with process claims having steps that are *physically* performable by human beings. Implicitly, a factory worker who carries out a claimed industrial process by hand is just as much an infringer as a machine capable of performing the various steps; and the user of a machine which otherwise infringes a process claim is not saved from liability simply because an intermediate process step such as "lifting" or "reversing" is performed by a human operator rather than being machine implemented. There have been no outcries that process claims which read on physical human operations impinge upon the individual's First, Ninth or Tenth Amendment "right to free mobility." But consider the analogous arguments aired in Prater, 162 *USPQ* 541 at 548, n.20.

generated by these notions were the frequently misunderstood, although legally and socially sound, rules that natural processes, mathematical processes, and mental processes (being *res nullius*) could not per se be claimed in a patent application, even where they represented a new *discovery*. The task of sorting out these ideas and unifying them into a meaningful system became so overwhelming that many judicial bodies chose the simple course of reiterating well-worn pseudo-truisms such as "mental steps are unpatentable because thought is not patentable."

By painstakingly analyzing (and reanalyzing) this mass of conflicting and often irrational law, the CCPA has, first in *Tarczy-Hornoch* and now in the *Prater* opinions, *begun* to give order and meaning to one of the intellectually most challenging, and heretofore evasive, areas of the patent law.

*Summary Statement*

The fact that mental processes are *res nullius* does not preclude an inventor from obtaining a valid patent covering a new and unobvious process; provided the claims are supported by the disclosure of a man-made apparatus capable of independently carrying out the inventive process and provided the claims do not literally read on the operation of the "biological apparatus" known as the human brain[129]—even though (1) the inherent function of the disclosed apparatus is identical to the inherent function of the "biological apparatus"; and (2) the result achieved in both cases is identical.

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[129] In combination, perhaps, with certain peripheral equipment such as eyes, voice box, etc.

# Design Patents and Obviousness—Obvious to Whom?*

ALFRED L. MICHAELSEN

SUMMARY

FOR YEARS COURTS HAVE HELD that when considering a design patent and 35 U.S.C. 103, the test to be applied is whether the design in question would have been obvious to the "ordinary designer." Recently, one court (the CCPA) has held that the correct test is whether the design would have been obvious to the "ordinary, intelligent observer."

Discussed herein is the rationale of this recent CCPA case, some of the cases which stand opposed to this holding and the merits of this new approach to the question of obviousness and design patents.

* This paper was submitted by the author in partial fulfillment of the requirements for the degree of Juris Doctor at Seton Hall University, School of Law. He is at present employed by the Westvaco Corporation as a Patent Agent.

## INTRODUCTION

TO ALMOST ANYONE who has something more than a passing familiarity with patent law, the concept of obviousness and the statutory requirements relating thereto are well known.[1] Equally well known to those "skilled" in the patent law are the history and evolution of this present day standard of patentability. Commencing over 100 years ago with the famous case of *Hotchkiss* v. *Greenwood,*[2] the development of this somewhat elusive concept has followed a long if not tortuous road. Indeed, if one were to consider all the patent cases which the Supreme Court has heard since *Hotchkiss,* it would appear that questions relating to obviousness have arisen with greater frequency than any other single area in the patent law.

Compared to cases which involve utility patents there are not a large number of design patent cases wherein the exclusive question was obviousness. Of specific interest herein are those cases relating to design patents where the issue of obviousness did arise and the manner in which it was disposed of vis-à-vis the manner in which the question would have been handled in a utility patent case. Of even more specific interest is the question of whether the test of obviousness is or should be applied any differently when considering design patents as compared to utility patents. Also under scrutiny will be the reasons, if any, which lend support for such a different application of this century-old standard of patentability.

## DESIGN PATENTS AND THEIR HISTORY

The history of the statutory and case law relating to design patents is probably somewhat less well known than the development of other areas of the patent law, e.g. the concept of obviousness. Thus, a summary of the history of the law relating to design patents would seem appropriate and indeed, will prove instructive in the resolution

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[1] 35 U.S.C. 103:

"Conditions for patentability; nonobvious subject matter.

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in Section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

[2] 52 U.S. 248 (1850).

of certain questions which will be posed at a later point. While it is demonstrably true that, at least to some extent, all of our patent law, whether it be statutory or case law, applies to patentable designs, we are concerned here primarily with the history of the statutory law relating specifically to design patents. Starting then with the enactment of the first statute relating exclusively to design patents, the following chronological summary of the development of our present design patent statute may be noted.

Section 3 of the Patent Act of August 29, 1842[3] provided the first statutory foundation for design patents. While numerous amendments were later enacted (up to and including the Patent Act of 1952[4]) it is interesting to note that certain parts of the 1842 Act have remained substantially unchanged. The essential test of patentability established by the 1842 Act was that a design, to be patentable, must be ". . . any new and original design for a manufacture . . . not known or used by others. . . ." Of still further interest is the fact that Congress provided that

(1) The fee for a design patent would be half of the fee normally required in a patent case;

(2) The term of a design patent would only be seven years;

(3) All of the other "regulations and provisions which now apply to the obtaining of protection by patents, not inconsistent with the provisions of this Act, shall apply to applications" for design patents.

Thus, it may be noted that some of the features which even today distinguish design patents from utility patents were embodied in the first design patent statute.

The 1842 Act was supplemented by the Patent Act of March 2, 1861[5] which in Section 11 included the additional provision that, as an alternate to the seven-year term provided for in the 1842 Act, an applicant for a design patent could elect a term of either three and one-half years or 14 years, i.e. still another distinguishing feature of design patents which has remained a part of our law even today.

The consolidated Patent Act of July 8, 1870,[6] which repealed and replaced prior acts, added a provision which not only was uniformly continued in subsequent acts but, as some modern courts have noted, provides an illuminating insight into the legislative intent relating to

[3] 5 Stat. 543 (1842).
[4] 35 U.S.C.
[5] 12 Stat. 246 (1861).
[6] 16 Stat. 198 (1870).

design patents vis-à-vis utility patents. Whereas the earlier design patent statutes, when referring to the fee due on the filing of an application for a utility patent, used the phrase ". . . as in the case now of applications for a patent,"[7] Section 74 of the Act of 1870 referred to design patents and "patents for inventions and discoveries." Again, it is to be noted that this distinction was maintained and employed in all later design patent statutes including the Patent Act of 1952.

Subsequent to the consolidated Patent Act of 1870 and its replacement in 1874 by the Revised Statutes (without any changes as to the design patents), the two later Patent Acts each provided only one change. The Patent Act of 1887[8] added the interesting and unique provision that when and if a design patent was infringed, a minimum liability of $250 would be incurred. Of course, like many of the provisions of the earlier acts, this singular provision has been carried over to our present design patent law.[9]

Excluding the 1952 Act, the last legislative action that altered the statutory law as to design patents was the Patent Act of 1902.[10] Prior to 1902 the basic statute which authorized the grant of patents for designs enumerated or attempted to enumerate the various articles which could form the subject matter of design patents. In an effort to dispel the confusion which such an enumeration inevitably generated, the permissible scope of subject matter of design patents was referred to (as is the case today) by the phrase "article of manufacture." In a similar effort to resolve the confusion which had arisen because of the wording of the prior statutes, the word "useful" which had theretofore been employed, was replaced by the word "ornamental," thus legislatively codifying earlier judicial decisions[11] which had held that such was the legislative intent. Finally, the Act of 1902 again accentuated the differences between design patents and utility patents by providing, as does our statute today,[12] that a period of six months rather than 12 months shall be the maximum time during which an applicant may have the benefit of his foreign filing date and similarly, one will not be entitled to a patent if prior to the U. S. filing date a corresponding foreign patent has issued on an application filed more than six months, rather than 12 months, before the U. S. filing date.

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[7] Section 3 of the 1842 Act, *supra* note 3; section 11 of the 1861 Act, *supra* note 5.

[8] 24 Stat. 105 (1887).

[9] 35 U.S.C. 289.

[10] 32 Stat. 783 (1902).

[11] *Ex parte* Knothe, 102 O.G. 1294; 1903 C.D. 42 and the cases cited therein.

[12] 35 U.S.C. 172: "Right of priority.

"The right of priority provided for by section 119 of this title and the time specified in section 102 (d) shall be six months in the case of designs."

## The Present and the Problem

Having looked at the past and some of the singular characteristics of our design patent law, what problem do we find today with regard to design patents and particularly with regard to design patents and obviousness? Stated succinctly, the basic question considered herein is—when applying 35 U.S.C. 103[13] to designs, who is the person skilled in the art? While many courts have, with a certain degree of alacrity, jumped from this question to a final decision as to patentability, the dictate of the Supreme Court in *Graham* v. *John Deere Company*[14] would appear to require a somewhat more searching consideration. At least one court, however, viz. the CCPA, has embarked upon the type of thorough investigation of this question which is consistent with the requirements of *Graham*.

*In re Laverne and Laverne*[15] involved an application for a design patent, the subject matter of which was a chair. The Patent Office rejected the application citing a previously issued design patent which claimed an admittedly similar design.[16] Although the exact statutory basis of the rejection was unclear,[17] the court proceeded on the assumption (which was uncontested by the Patent Office) that the rejection was based on Section 103. Thus, the court declared that "the sole issue is obviousness of the design under 35 U.S.C. 103."[18] At this juncture, rather than passing from the premise to the conclusion in the form of a decision based solely on citations, the court paused to examine the sections of the patent code relating to designs (which sections are the outgrowth of the previously outlined historical development) in the light of the language used in Section 103. Specifically, the court noted that Section 171[19] distinguished between "patents

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[13] *Supra* note 1.

[14] ". . . under section 103, scope and content of prior art are to be determined, differences between prior art and claims are to be ascertained, and level of ordinary skill in the pertinent art resolved, against this background, obviousness of subject matter is determined . . ." Graham v. John Deere Co., 383 U.S. 1, 148 *USPQ* 459 (1966).

[15] 356 F.2d 1003, 148 *USPQ* 674 (C.C.P.A. 1966).

[16] See 148 *USPQ* 674 at 675 for drawings of the cited art and the design of the application.

[17] ". . . neither the examiner nor the board referred to any ground of rejection." 148 *USPQ* 674.

[18] 148 *USPQ* 674 at 677.

[19] 35 U.S.C. 171: "Patents for designs.

"(a) Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.

"(b) The provisions of this title relating to patents for inventions shall apply to patents for designs, except as otherwise provided."

for inventions" and "patents for designs," a difference in wording "which would seem to indicate a legislative consciousness that 'inventions' and 'designs' are different in kind."[20]

Having established this possible basis for differentiation, the court proceeded to a consideration of Section 103 as applied to design patents and in particular posed the question "in the case of a design patent, who is a 'person having ordinary skill in the art'?" To answer this question, the court observed that since the *Hotchkiss* case the law has distinguished between the "mechanic" and the "inventor," the work product of the former being, by definition, unpatentable, i.e. if an invention would have been obvious to the "mechanic" it is unpatentable. Noting that the subject matter of design patents may generally be taken to be the work product of a competent designer, the court queried "Into what class should we place the 'competent designer'?" Clearly, if he is classed as a mechanic, all his work products will be unpatentable, a result which is submitted to be something less than consonant with the legislative intent to promote progress in the field of industrial design by means of the patent incentive. Arriving then at the conclusion that the problem of applying Section 103 to designs cannot be solved by equating the "mechanic" to the competent designer, who then constitutes the "mechanic" class when considering design patents? To this question the court answered, "the ordinary, intelligent man." Thus, *Laverne* can be cited for the proposition that when applying Section 103 to design patents or design patent applications, the test is whether the design in question would have been obvious to the ordinary, intelligent man.

## *Laverne* v. Stare Decisis

In resisting Judge Rich's thesis in *Laverne,* one might be heard to argue that other courts, in the past, have firmly established the rule as to who is one having ordinary skill in the design art, viz. such a person is the "competent designer" and, at this late date, such a rule should not be disturbed notwithstanding any differences found in the wording of the statutory patent law. While such an argument may have a degree of force, its thrust, to a large extent, will be dependent upon the soundness of the cases which stand opposed to *Laverne.* As a result, it would seem appropriate to consider, at least briefly, those cases which might be cited as holding contrary to the decision of the CCPA in *Laverne.*

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[20] 148 *USPQ* 674 at 676.

Clearly, the point at which *Laverne* parts company with most of the earlier cases relating to obviousness and design patents is its succinct holding that when considering Section 103 in connection with design patents, "one skilled in the art" is the ordinary intelligent man. While few if any earlier cases have specifically considered the question who is one skilled in the art vis-à-vis design patents, cases can be found with statements to the effect that the skilled art worker is the ordinary designer,[21] the ordinary draftsman,[22] the capable designer,[23] a skilled person with natural aptitudes,[24] et cetera. Of course, all of these cases contain numerous citations to other cases with similar holdings, all of which would appear to be contrary to *Laverne*. While, to one extent or another, all of these cases offer some reasoning in support of their position, and therefore in opposition to *Laverne,* practicality dictates that not every such case can be studied. Thus, a consideration of the cases standing opposed to *Laverne* will be limited to a representative judicial circuit. For two reasons, the Seventh Circuit has been selected. First, the Seventh Circuit seems to have an abundance of cases relating to design patents. Second, several cases from the abundant supply seem to be cited with predictable uniformity by most other courts when considering questions relating to design patents.

*Day-Brite Lighting, Inc.* v. *Sandee Manufacturing Co.*[25] is a relatively recent Seventh Circuit case which has almost consistently been cited in later cases. Fortunately, it provides an apropos starting point for our considerations since it explicitly held, *inter alia,* that "To be patentable, . . . a design must be . . . unobvious to an ordinary designer."[26] To support this proposition, the *Day-Brite* court cited one of the most frequently referred to design patent cases, viz. *Amerock Corporation* v. *Aubrey Hardware Manufacturing, Inc.*[27] Although the court in *Amerock* never explicitly stated the holding which the *Day-Brite* court cited, the court in *Day-Brite* was nevertheless probably quite safe in citing *Amerock* since, although only four pages in length, *Amerock*

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[21] Blisscraft of Hollywood v. United Plastics Co., 294 F.2d 694, 131 *USPQ* 55 (2d Cir. 1960).

[22] Amerock Corp. v. Aubrey Hardware Manufacturing, Inc., 275 F.2d 346, 124 *USPQ* 439 (7th Cir. 1960).

[23] Capax Co. v. Swartz, 166 F.2d 5, 76 *USPQ* 454 (7th Cir. 1948).

[24] Sel-O-Rak Corp. v. Henry Hanger & Display Fixture Corp., 232 F.2d 176, 109 *USPQ* 179 (5th Cir. 1956), *cert. den.* 352 U.S. 870, 111 *USPQ* 467 (1956).

[25] 286 F.2d 596, 128 *USPQ* 1 (7th Cir. 1960), *cert. den.* 366 U.S. 963, 129 *USPQ* 502 (1961).

[26] *Id.* at 128 *USPQ* 4.

[27] *Supra* note 22.

cites 36 cases. Thus by viewing *Amerock* as something of a conduit, one could probably find support for almost any proposition relating to design patents. While the citation of so many cases is a procedure which will almost insure that the case will often be cited, the result is a case whose holding and authority are somewhat less than explicit. In all probability, when citing *Amerock* as support for the ordinary designer test, the *Day-Brite* court was referring to the following statement of the court in *Amerock*:

> It is settled beyond dispute that a design patent, in order to be valid, must disclose a design that is new, original and ornamental, and beyond the skill of an ordinary designer.[28]

To support this statement (which could have been in reference to Sections 101[29] and/or 171[30] of Title 35 rather than Section 103 as the *Day-Brite* court assumed) *Amerock* cites the following cases: *Spaulding* v. *Guardian Light Company*,[31] *Hopkins* v. *Waco Products*,[32] *Hueter* v. *Compco Corp.*,[33] *Capex Co.* v. *Swartz*[34] and *Zangerle & Peterson Co.* v. *Venice Furn. Novelty Mfg. Co.*[35] Since these cases are the only authority which the court in *Amerock* provided for its holding and therefore are the only authority which *Amerock* can lend to another court which cites its holding, we now trace back through these cases in an attempt to ascertain the wellspring from which the ordinary designer test issues.

Turning to *Spaulding*, two points clearly appear. First, the case was decided on the basis that the design in question was merely functional and therefore invalid.[36] Thus, any comments in the case which might be read as relating to the question of obviousness are only dicta. Second, to support the dictum regarding obviousness, which was identical to the above citation from the decision in *Amerock*, the court in *Spaulding* cited *Hopkins*, *Hueter* and *Capex*.

Turning now to *Hopkins*, one finds a similar situation. *Hopkins*, like *Spaulding*, was not decided on the basis of obviousness but on the

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[28] 124 *USPQ* 439 at 440.

[29] 35 U.S.C. 101: "Right to patent: inventions patentable.

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, or his successor in title, may obtain a patent therefor, subject to the conditions and requirements of this title."

[30] 35 U.S.C. 171, see note 19 *supra*.

[31] 267 F.2d 111, 121 *USPQ* 288 (7th Cir. 1959).

[32] 205 F.2d 221, 98 *USPQ* 51 (7th Cir. 1953).

[33] 179 F.2d 416, 84 *USPQ* 312 (7th Cir. 1950).

[34] 166 F.2d 5, 76 *USPQ* 454 (7th Cir. 1948).

[35] 133 F.2d 266, 56 *USPQ* 351 (7th Cir. 1943).

[36] 121 *USPQ* 288 at 290.

basis that the design in question was not new,[37] i.e. it was unpatentable under Section 171, not Section 103. However, there was dictum in the case relating to obviousness, in support of which the court cited *Hueter* and *Capex*.

Skipping *Hueter* for the moment and turning to *Capex*, one is hard put to concisely state the basis on which the patent in question was held invalid since the court concludes its opinion with the following statement:

> The issue being within what we have previously said in the cases cited, it follows that the patent is invalid.[38]

However, whatever the basis was on which the patent in question was held invalid, the following statement is to be noted:

> [One must determine whether] the patentee has exceeded the skill of the capable designer.[39]

Since this statement is the only one in the *Capex* case which is even remotely related to obviousness, it must have been the basis for which the above mentioned courts cited this case in support of their positions. However, the *Capex* court, as authority for the above proposition, cited the case of *In re Kalter*,[40] thus apparently bringing us to the end of one road in this chain of authority.

Considering *Kalter*, we find the CCPA stating that the rule as to obviousness and design patents is whether the design would have been obvious to one skilled in the art. But who is one skilled in the art? *Kalter* did not answer that question. *Kalter* did not say that designs, to be patentable, must be unobvious to a capable designer or the ordinary designer. Yet *Capex* cites *Kalter* for that proposition and numerous cases thereafter followed *Capex* as to this point. Thus, it can be seen that the court in *Capex*, without expressly saying so, equated the capable (ordinary) designer to one skilled in the art and courts thereafter followed this unspoken extension of the holding in *Kalter* although the holding in *Kalter* was nothing more than a statement of the law as it has always been understood since *Hotchkiss*, i.e. it is the skilled art worker (whoever he may be) who is the determining factor when considering the obviousness of a design or invention.

Returning now to *Hueter*,[41] we find first of all that the patent in

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[37] 98 *USPQ* 51 at 53.
[38] 76 *USPQ* 454 at 455.
[39] *Id.*
[40] 125 F.2d 715, 52 *USPQ* 483 (C.C.P.A. 1942).
[41] *Supra* note 33.

question in that case was held invalid not on the basis of obviousness but because, as the court viewed the design, it was "purely functional."[42] As dicta, however, the court stated that "The exercise of the skill of only an ordinary designer is not sufficient."[43] To support this position the court in *Hueter* cited *S. Dresner & Son, Inc.* v. *Doppelt*[44] which contains a statement similar to that cited above. The court in *Dresner* cites as its authority *Neufeld-Furst & Co., Inc.* v. *Jay-Day Frock.*[45]

Closely reading the *Neufeld* decision, one finds dicta relating to the use of the *"ordinary designer"* test for obviousness of a design. The sole support which the *Neufeld* court offered for this proposition was the case of *Nat Lewis Purses Inc.* v. *Carole Bags Inc.*[46] which was a *per curiam* opinion of the Court of Appeals for the Second Circuit.

After thoroughly reading the entire one-page opinion in *Nat Lewis* (which, as one may observe from the above chronology, forms the basis or foundation for almost a dozen later decided cases) one perceives the following statement which must be the cornerstone on which all the later cases rest:

> . . . a design patent must be the product of invention, i.e. the exceptional talent that is required for a mechanical patent.[47]

Now the question arises, what is that "exceptional talent that is required for a mechanical patent"? Manifestly, from the point of view of obviousness, the exceptional talent in question is that which produces a product unobvious to the skilled art worker. But, with regard to design patents, who is the skilled art worker? Whatever the answer to that question may be, it was surely not provided by the court in *Nat Lewis.*

From the above, once again we see that a case which courts have uniformly relied upon to support the rule that the test as to obviousness is to use the ordinary or competent designer did not, in fact, so hold. Rather, these "foundation" cases merely stated what the law was, the statements of the law being made without interpretation. Later, these statements were interpreted by other courts, *en passant.* In contradistinction to this approach, the CCPA in *Laverne* started with a fundamental statement of the law, and proceeded from there, not by way of citation but by way of analysis, to a conclusion that the test to

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[42] 84 *USPQ* 312 at 313.
[43] *Id.*
[44] 120 F.2d 50, 49 *USPQ* 622 (7th Cir. 1941).
[45] 112 F.2d 50, 49 *USPQ* 632 (2d Cir. 1940).
[46] 83 F.2d 475, 29 *USPQ* 564 (2d Cir. 1936).
[47] *Id.*

be applied under Section 103, when considering design patents or design patent applications, is obviousness to the ordinary intelligent man.

## THE RATIONALE OF *Laverne*

It has been demonstrated that at least some of the cases which stand opposed to *Laverne* rest on something less than a strong foundation. The question thus arises—regardless of the weaknesses which may be found in the cases opposed to *Laverne,* should the *Laverne* rule be followed? It is felt that the best way to answer this question is to closely examine the reasoning upon which *Laverne* is predicated and the ancillary questions, if any, which are raised by such reasoning.

Beyond peradventure, the fundamental basis on which *Laverne* rests is the premise that there is a difference in kind between utility patents and design patents. If this premise can be proven and is then accepted, the decision in *Laverne* would seem to irresistibly follow. Thus, to establish the validity of the premise, we pose the secondary question: are there any differences, of substance, between utility patents and design patents? To answer this question, we look to the case law and/or the statutory law and its legislative history.

Considering the latter area first, it has been pointed out earlier that the legislative history of our present design statute evidences what might well be regarded as a differentiation between design and utility patents. This legislative differentiation would seem to be manifested by the following statutory provisions, wherein the contrast between the law relating to design and utility patents is "obvious":

> Under no circumstances will a design patent have a term of 17 years.[48]
>
> The design patentee may select the term which he desires, i.e. either 3.5, 7 or 14 years.[49]
>
> The filing fee for a design patent application is a fixed amount and bears no apparent relation to the filing fee for a utility patent application.[50]
>
> Similarly, the issue fee for a design patent bears no apparent relation to the issue fee for a utility patent.[51]

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[48] 35 U.S.C. 173: "Term of design patent.

"Patents for designs may be granted for the term of three years and six months, or for seven years, or for fourteen years, as the applicant, in his application, elects."

[49] *Id.*

[50] 35 U.S.C. 41 (a) (3a) and 35 U.S.C. 41 (a) (1).

[51] 35 U.S.C. 41 (a) (3b) and 35 U.S.C. 41 (a) (2).

The convention date priority right provided by Section 119[52] is six months in the case of a design patent application as opposed to one year in the case of a utility patent application.[53]

The time period relating to foreign patents issuing prior to a U. S. application[54] is six months in the case of a design patent as opposed to one year in the case of a utility patent.[55]

Only in the case of design patents is there provided a minimum amount of damages for infringement.[56]

In addition to these differences found in the statutory law, it would appear that the Patent Office has perceived something of a difference between design and utility patent applications or patents, as is indicated by the following excerpts from the Rules of Practice:

An application for a design patent may not have more than one claim.[57]

The one claim must be in formal terms.[58]

Turning to the case law, similar differentiation is evident. For example, a plethora of cases hold that the *sine qua non* of a patentable design is that the design be ornamental.[59] Indeed, this is no more than the statute demands.[60] However, the hallmark of patentability in the area of utility patents, viz. that the invention be functional, i.e. it has utility, is the antithesis of design patentability.[61]

In a similar vein of distinction, it seems to be the uniform holding of all courts that where there is a question as to the infringement of a design patent, the test to be applied is whether the "ordinary observer" would regard the overall design as substantially the same.[62] Certainly, one would enounter substantial difficulty in trying to find a case involving a utility patent wherein the criterion employed for any purposes involved the "ordinary observer."

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[52] 35 U.S.C. 119.

[53] 35 U.S.C. 172, *supra* note 12.

[54] 35 U.S.C. 102 (d).

[55] 35 U.S.C. 172, *supra* note 12.

[56] 35 U.S.C. 289.

[57] Rule 153 (a).

[58] Rule 153 (a).

[59] Cavu Clothes, Inc. v. Squires, Inc., 184 F.2d 30, 86 *USPQ* 506 (6th Cir. 1950). Gorham v. White, 81 U.S. 511 (1871). Bentley v. Sunset House Distributing Corp., 359 F.2d 140, 149 *USPQ* 152 (9th Cir. 1966).

[60] 35 U.S.C. 171, *supra* note 19.

[61] "Focus in judging validity of design patent is primarily its appearance, patent is invalid if design is dictated primarily by functional needs." Methode Electronics, Inc. v. Elco Corp., 385 F.2d 138, 155 *USPQ* 353 (3rd Cir. 1967).

[62] ". . . test of sameness of effect on the eye means eye of ordinary observer rather than eye of expert in the subject matter." Blumcraft of Pittsburgh v. United States, 151 *USPQ* 107 (U.S. Ct. Cls. 1966).

While arguments in the abstract have merit because of their generality, specific cases are often more persuasive as to the wisdom of following or not following a particular rule of law. Thus, consider for example the case of *Rains* v. *Cascade Industries.*[63] At issue in this infringement action was the validity of a design patent[64] for a so-called above-the-ground swimming pool which, according to the plaintiff's brief, the defendant (who employed as its sales manager an ex-distributor of the plaintiff) copied, realizing thereby gross sales of $3,000,000 in 1966. Prior to the trial, plaintiff submitted the affidavits of two individuals, both of whom appear to be "competent designers."[65] In each affidavit it was stated, *inter alia,* that in the opinion of the affiant, the design in question was not obvious. However, notwithstanding both of the affidavits and although the defendant clearly infringed the plaintiff's patent (if valid),[66] the court granted summary judgment for the defendant, holding that the design in question would have been "obvious to a carpenter"!

Now, pragmatically speaking, if two competent designers swear that, in their opinion, a particular design would not have been obvious and the court holds the design to be unpatentable because it is obvious, is not the court, in reality, only substituting and stating its opinion as an "ordinary, intelligent observer"? If then, the courts are to proceed in such a manner, why not give such a procedure judicial sanction by following the rule in *Laverne?* Indeed, the Supreme Court may well have had such a rule in mind when it held that "the ultimate test of patentability . . . resides as a subjective standard in the mind of the judge as an *average observer.*"[67] (Emphasis added.)

## Conclusions

For whatever merit there may be in the *Laverne* rule, the entire issue may become mooted if the legislature should intervene to resolve the question. However, during the interim between now and whenever such a legislative action is taken, it would seem probable that one or

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[63] 266 F. Supp. 688, 154 *USPQ* 435 (D.C. D.N.J. 1967).

[64] Des. 201, 793.

[65] One of the affiants had 11 years' experience in the design of above the ground swimming pools. The other affiant held a patent on an above the ground pool.

[66] ". . . the issue of infringement must be decided against the defendant." 148 *USPQ* 435 at 442.

[67] Gorham v. White, *supra* note 59. To the same effect see Smith v. Whitman Saddle Co., 148 U.S. 674 (1892), *In re* Park, 181 F.2d 255, 85 *USPQ* 278 (C.C.P.A. 1950) and the cases cited therein.

more district courts will be faced with the question which arose in *Laverne*. When such an occasion arises, there would seem to be two alternatives open to such a court, i.e. the court could either (1) analyze the question as the *Laverne* court did, and reach a decision relatively independent of citations of other district court cases which merely rest on still other citations; or (2) simply follow the previous case law within the particular circuit in which the court is sitting.

As to the first alternative, one can appreciate the possible reluctance of a district court to strike out on its own in such an arcane area as design patents. While the CCPA may feel relatively at home with a design patent case, such a case is certainly not the normal fare for a district court calender.

Recognizing the difficulties associated with the first alternative, what can be said as to the wisdom of the second alternative? For the court which chooses this alternative, justification might be sought in the dissenting opinion of Senior District Judge Kirkpatrick when he observed:

> In a system of jurisprudence founded upon *stare decisis,* as our system is, an established rule or principle will not be departed from except in case of grave necessity when cogent reasons require such departure. If a rule of law, well established by decisions, is erroneous, it is still not to be lightly set aside by the courts but any abandonment or alteration of it should be by the legislature, the body charged with the responsibility of making the law and not by us whose only duty is to define and construe it.[68]

Although the obvious thrust of Judge Kirkpatrick's observation makes a strong case for the invocation of *stare decisis,* does it really justify a court following the second alternative? The answer to that question would seem to have been provided by a Kentucky court when it observed:

> The doctrine of *stare decisis* is never mandatory, and no court has ever held, and no text has ever been written, so far as we have been able to discover, that it should be given the effect to padlock or choke the courts so as to force them to continue to perpetuate error.[69]

Thus, the ultimate question is, are the cases which have held that the skilled art worker is the competent designer in error irrespective of the number of such cases? To be sure, the question will never be answered if the second alternative is adopted and the district courts continue to avoid an original analysis of the problem.

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[68] *In re* Tarczy-Hornoch, 397 F.2d 856, 158 *USPQ* 141 at 151 (C.C.P.A. 1968).
[69] Marks v. McDanell, 307 Ky. 243, 210 S.W. 2d 784 (Ct. App. 1948).

It is submitted that the *Laverne* case and the resulting rule or test, i.e. obviousness to the ordinary, intelligent observer and not the competent designer, has much to recommend it and should be adopted by the district courts. Quite apart from the relatively weak basis upon which many of the cases rest that are opposed to *Laverne* and the discernible legislative differentiation between design patents and utility patents, adoption of the *Laverne* rule will provide the district courts with a test which is significantly easier to apply. When faced with an obviousness question in a design patent case, no longer would the courts have to decide the question vicariously, i.e. by deciding what would or would not have been obvious to the competent designer. Rather, the court could give its *own* opinion and decision as an ordinary, intelligent observer—as is the case now when a design infringement question arises. By adopting a rule which would allow the court to step out of the shoes of some hypothetical individual, i.e. the competent designer, it would seem that, as a minimum, a substantial step would be taken toward the more predictable and uniform administration of our design patent laws while nevertheless "promoting the useful arts."[70]

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[70] U.S. Const. art. I, § 8.

# Recently Published or Reported Material Relating to the Research Institute's Work

## Books

Linden, Fabian, *The Consumer of the Seventies,* Prepared by the National Industrial Conference Board, Inc., Sponsored by Time, Inc. (New York City: 1969), 68 pages.

The business economist engaged in research and analysis relative to economic implications of industrial property rights has long been in need of adequate "finger tip" reference data on U.S. growth and consumption trends. Such information is now handily available in this 5″ by 5″ work prepared by Fabian Linden, the Manager of NICB's Consumer Economics Department, under the general supervision of Martin R. Gainsbrugh, Senior Vice President and Chief Economist, with financial assistance from Time, Inc. Mr. Linden notes that virtually all of the pre-1969 data is from U. S. government sources; later projections were evolved by the NICB itself. This reviewer, having spent many hours poring through government statistical data to acquire information for use in studies on economic impacts of trademarks, can well appreciate the compact and precise data readily available in this publication.

Those in charge of company trademark practices will do well to read carefully the consumer spending directions projected by the NICB. New products, moves to the suburbs, expanding educational achievements, and rising levels of affluence will create drastic changes in consumer needs and preferences in the next decade, particularly for services, says the report.

We may view these projections in conjunction with The PTC Research Institute's most recently completed study on "Economic Interests in Service Marks," published in *IDEA,* Volume 13, Number 1 (Spring 1969). This PTC study notes the growing trend by firms in service industries, such as transportation, banking, insurance, communications, and public utilities, to develop new up-dated marks, for use in publicizing their services and in developing a focal point for goodwill and image-building purposes. The growing resources devoted to service mark develop-

ment will be well worth such present and continuing investments, if the NICB projections are borne out.

The NICB study notes that another important consumer trend in the 70's, as the average family's fortunes improve, will be the larger share of income available for luxury type goods. Again, we can relate this projection to The PTC Research Institute studies indicating that since quality, even more so than price, is becoming the governing factor in selection of goods to be purchased with "discretionary income," trademarks are assuming greater roles as symbolic bases for consumer choice. As millions of families move forward in the earning scale from "mass to class," trademarks will become increasingly important in determining their preferences. At the same time, suppliers will have to see to it that their quality standards symbolized by trademarks are not only maintained, but improved, in our affluently competitive society.

The NICB study also has relevance for those in company management responsible for research and development, technical innovations and patent programs. It points out that "new scientific breakthroughs are making for a vast transformation of the consumer market." To elaborate, it might be pointed out that latest available statistics published by the U. S. National Science Foundation show that about one-half of all manufacturing firms with 1,000 or more employees have increased their R & D expenditures by at least 10 percent annually in recent years. Particular industries in which 50 percent of the companies showed such gains were textiles and apparel, rubber products, professional and scientific instruments, machinery and electrical equipment. The different needs and preferences of the consuming public, sparked by the rising level of affluence in the 70's as projected in the NICB study, will certainly have its ramifications on broadened and re-allocated resources for R&D by U. S. firms.

This NICB study may have different meanings for different professional groups—business economists may accept it as a usable desk reference, management as a convenient summary-trend projector, and advertising agencies as a good thumbnail sketch of consumer demands, among other groups. There may be those, however, who would consider the study too starry-eyed an appraisal of what business may expect in the future. In the 70's, businessmen will undoubtedly be confronted with such forthright matters as the insatiable demand for proper product servicing, the need for increased consumer protection, particularly in the ghettoes, and employment, education

and investment projects directed to minority betterment, all of which may transcend the short-run profit motive. Perhaps the report does not purport to tell the whole "graphic story of the changing American scene"; let's hope that a follow-up study may be forthcoming on social problems of the 70's "that should [also] prove useful for broad company planning and the formulation of selling strategy in the market" of that period.

Many business economists, if they feel as I do, will welcome *The Consumer of the Seventies* as a concise, factual appraisal of "economic dimensions of the consumer marketplace" in that period. To me, it will be very useful for reference purposes in forthcoming PTC Research Institute projects on economic aspects of industrial property rights. I hope it will serve other researchers as well.

Joseph M. Lightman

Jones, Stacy V., *The Inventor's Patent Handbook,* revised edition (New York: The Dial Press, Inc., 1969), 229 pp., $5.95.

As we went to press, we received a copy of this book. To give our readers an idea of its content and flavor, we quote the following excerpt from the release which accompanied it:

"The manual advises the inventor on keeping records, on getting legal advice, on the steps of the patenting procedure, and finally on selling or licensing a patent to industry or government. He is told how long patenting takes and what it costs.

"The book disposes of some myths, such as that an avid public will beat a pathway to an inventor's door and that the Russians steal our patents. It is aimed not only at the independent inventor, who may be planning to start production in his garage, but informs the engineer or scientist what rewards he can expect from a corporate employer.

"Extracts are given from the patent law and summaries of important Supreme Court decisions. A specific case history carries an invention from conception through patenting to successful promotion.

"Mr. Jones has drawn on the experience and advice of many inventors, patent lawyers, and officials of public and private agencies, as well as his own observations as a patent columnist since 1952. He is the author of several other books, including 'You Ought to Patent That,' published by The Dial Press in 1962. A regular contributor to *Science Digest,* he has also written for other national magazines."

## PERIODICALS

Abelman, Lawrence E., "Trademark Disclaimer Practice," *The*

*Trademark Reporter,* Vol. 59, No. 5 (May 1969), p. 324.

"In many countries, trademark disclaimer practice is well-established by specific statutory provisions and with a long history of case law. The statutes and the cases clearly give the impression that in most situations disclaimers can readily be agreed to without concern as to loss of any rights. However, it is submitted that the practice is not quite so simple; disclaimers should not be agreed to without giving full consideration and proper legal analysis to all of the circumstances involved, including the history of the trademark, and the manner in which it is used in commerce."

Alexander, W., "Establishment of the Common Market and the Problem of Parallel Patents," *Antitrust Bulletin,* Vol. 14 (Spring 1969), p. 181.

Arnold, T., and Durkee, B., "Trademark and Unfair Competition Considerations in Franchised Business Operations," *New York Law Forum,* Vol. 15 (Spring 1969), p. 80.

Atwood, John F., "Import Restrictions on Trademarked Merchandise—The Role of the United States Bureau of Customs," *The Trademark Reporter,* Vol. 59, No. 5 (May 1969), p. 301.

"A review of Customs administration of trademark laws over the past 50 years shows that the Government's practice, or policy, has not remained constant. This occurred not only because new fact patterns demanded new solutions, but also because of certain ambiguities in the underlying laws. Both of these situations are with us in 1969.

"Several of the Bureau of Customs positions to be discussed in this article are under review and could be changed by administrative action. In addition recent, and future, court decisions may necessitate changes in long-standing practices. Finally, long-awaited legislation may be passed bringing changes which can only be speculated about at this point."

Avery, Harold T., "Patents from the Inventor's Viewpoint," *Journal of the Patent Office Society,* Vol. 51, No. 7 (July 1969), p. 446.

"I will first highlight my connection with invention and patents as a background for a few remarks relative to some possible changes in our patent law. This historical background might well be called 'Reminiscences of an Old Time Inventor' and I think it will help you to understand the perspective from which I view these matters."

Barranger, G. K., "Industrial Trade Secrecy in Louisiana," *Tulane Law Review,* Vol. 43 (June 1969), p. 775.

Blalock, J., "Advertising Copyrights," *Publishing, Entertainment, Advertising and Allied Fields Law Quarterly,* Vol. 9, No. 1 (June 1969).

Block, Carl E., "Symbolic Branding: The Problem of Mistaken Identity with Design Marks," *The Trademark Reporter,* Vol. 59, No. 6 (June 1969), p. 399.

"The purpose of this study was to determine whether the conjecture made above concerning consumer confusion in the recognition and identification process involving brand marks is a real one. That is, does the quality of sameness and added emphasis on breadth of application in the design of many modern symbol marks significantly hamper the consumer's ability to correctly associate these marks with their company sponsors? . . ."

Boguslavsky, M., "Legal Protection of Trademarks in the U.S.S.R.," *The Trademark Reporter,* Vol. 59, No. 6 (June 1969), p. 439.

"There is no uniform legislative act in the U.S.S.R. that would regulate every class of objects of industrial property (inventions, industrial designs, trademarks). Each of these classes is covered by a specific regulatory act.

"The basic principles of legal protection of trademarks are set out in the U.S.S.R. Council of Ministers Decree 'On Trademarks' dated May 15, 1962. The procedure of trademark registration is set out in 'Provisions for Trademarks' adopted by the Committee for Inventions and Discoveries under the U.S.S.R. Council of Ministers on June 23, 1962. This Committee also approved 'Instructions for Filing Trademark Applications' on January 24, 1967.

"A trade or a servicemark signifies in Soviet legislation a graphic representation identifying the wares or services of a certain establishment as against the wares or services of other establishments, and serving to advertise such wares or services. Said representation may be characterized by original names, words, combinations of letters or figures, vignettes, different kinds of packing, graphic designs, and drawings with or without letters, figures, words, etc."

Boyer, S. H., "Commercial Success as Evidence of Patentability," *Fordham Law Review,* Vol. 37 (May 1969), p. 573.

"Brenner v. Manson: An Analysis," *Indiana Legal Forum,* Vol. 2 (Spring 1969), p. 396.

Brock, S. W., "Dedication of Unclaimed Disclosure in Utility Patents—A Critical Appraisal," *South Texas Law Journal,* Vol. 11 (1969), p. 1.

Brothers, Robert F., and Grimaldi, Alan M., "Comment/In re Prater and Patent Reform Proposals: 'Debugging' the Patent Office's Administration of Computer Program Applications," *Journal of the Patent Office Society,* Vol. 51, No. 9 (September 1969), p. 581.

"At best the present state of the law in this area is confused, since the interested administrative, judicial, legislative and professional organizations have adopted conflicting opinions. The programmer, faced with these positions, not only cannot determine the *extent* of his right to protection but cannot even safely determine if he *has* a right to protection. This comment will briefly outline the present protection available to the programmer, suggest the type of protection most suitable for programs, and discuss possible ways of achieving protection with minimal changes in current patent law."

Butler, F. Prince, "Rules Defining the Use of Trade Terms in Patent Applications," *Journal of the Patent Office Society,* Vol. 51, No. 6 (June 1969), p. 339.

"Generally, it is undesirable to use trademarks and trade names in patent applications; however, courts have allowed their use under a variety of factual circumstances. Because of the divergence of such decisions it is difficult for patent attorneys and patent office examiners to appraise whether or not particular trade terms have been properly used in patent applications. This note presents four rules which embody all the known cases involving the use of trade terms in patent applications."

Carter, J. C., "Foreign Patent Licensing," *Wisconsin Bar Bulletin,* Vol. 42 (April 1969), p. 52.

Cary, G. D., "CATV—the Fortnightly (United Artists Television, Inc. v. Fortnightly Corp., 88 Sup. Ct. 2084) Postlude," *Bulletin of the Copyright Society of the U.S.A.,* Vol. 16 (February 1969), p. 157.

"CATV—the Continuing Copyright Controversy," *Fordham Law Review,* Vol. 37 (May 1969), p. 597.

Colman, W. J., "Use of a Trademark in Australia," *The Trademark Reporter,* Vol. 59, No. 4 (April 1969), p. 272.

"English statutory provisions relating to trademarks have been strictly territorial in their operation. Under the Commonwealth Trade Marks Act, 1955-1958, the concept of 'the use of a trademark in Australia' is thus one of fundamental importance. It is surprising that the question of what constitutes the use of a trademark in Australia has not

arisen for judicial determination more often than the reports indicate. There does not appear to be a great deal of authority directly on the question. Accordingly, the decision of the High Court in the Estex case is a valuable contribution to this area of trademark law."

"Computer Program Protection: the Need to Legislate a Solution," *Cornell Law Review,* Vol. 54 (April 1969), p. 586.

"Congress, the Court, and the Commissioners: A Legacy of Fortnightly (Fortnightly Corp. v. United Artists Television, Inc., 88 Sup. Ct. 2084)," *New York University Law Review,* Vol. 44 (May 1969), p. 521.

"Copyright Law Revision and ETV: An Alternative to the 'Wasteland'?" *Rutgers Law Review,* Vol. 23 (Fall 1968), p. 104.

"Copyright Law for Tomorrow," *Suffolk University Law Review,* Vol. 3 (Summer 1969), p. 556.

"Discovery Provisions of the Federal Rules of Civil Procedure as Applied to Patent Interference Proceedings," *Dickinson Law Review,* Vol. 73 (Spring 1969), p. 509.

Dole, Richard F., Jr., "Merchant and Consumer Protection: The New York Approach to the Regulation of Deceptive Trade Practices," *The Trademark Reporter,* Vol. 59, No. 4 (April 1969), p. 237.

"In 1959 a Special Committee of the Antitrust Section of the New York State Bar Association issued a report on the New York law of unfair trade practices. After an exhaustive analysis of the New York statutes and decisions, the Special Committee recommended enactment of a statute empowering the Attorney General or any district attorney to enjoin the commission of '[d]eceptive acts or practices in the conduct of any business, trade or commerce or in the furnishing of any service.' The Committee expressly refused to endorse a coordinate private remedy, and the proposed statute declared that it neither enlarged nor diminished the rights of parties to private litigation. Professor Milton Handler, the Chairman of the Special Committee, stated that the Committee had found the New York common law of deceptive trade practices in ferment and had opted to let that ferment take its course rather than run the risk of engaging in unwarranted legislative intervention. Nevertheless, he recommended that the Bar Association re-examine the common law remedies for deceptive trade practices in about a decade to see if the time was then ripe for statutory codification or change.

"The decade to which Professor Handler referred is almost over. This article examines the developments in New York law during that period in order to ascertain whether there is now an observable need for legislation providing private remedies for deceptive trade practices. . . ."

Ebb, Lawrence F., "Current Problems of American Companies that Permit Use of Their Corporate Names and Trademarks Overseas," *The Trademark Reporter,* Vol. 59, No. 5 (May 1969), p. 344.

"As the American corporation moves increasingly into the world market, it must adopt measures that will maintain and extend the popularity and economic potential of its corporate name and key trademark without running serious risk of losing them to foreign entities on which it relies as essential components of its worldwide organization. To deny all use of its corporate name and trademarks by any others overseas may be to doom itself to inefficient and ineffectual methods of doing business abroad. A sensible compromise is to retain its overseas trademark and trade name registrations in its own name and license their use, as trademarks and as a part of corporate titles, only to its own controlled subsidiaries. This confines but does not eliminate problems for the future, when the American parent may lose equity control over the subsidiaries. What those risks and problems are is graphically illustrated by the Columbia Ribbon experience with its former Italian subsidiary. For purposes of instruction, that illustration is hyperbolic, largely though not wholly because Columbia Nastri was allowed to register the Italian marks in its own name. Even after discounting that unusual factor, the case is still a warning to internationally oriented American enterprise."

Franz, Bernard E., "Prosecution Problems with a Plurality of Inventions from a Single Project," *Journal of the Patent Office Society,* Vol. 51, No. 9 (September 1969), p. 559.

"There appears to be no overriding public policy reason why inventions arising out of a common cooperative effort and incorporated in the same apparatus should not be disclosed in the earlier filed patent applications, or why such disclosure should bar patenting of these inventions in later filed applications, if the applications are copending. It could be agreed that the later applications should be filed as soon as practical. It is also agreed that the assignee should make the facts of record, but this can be done merely by reciting in the earlier filed applications who invented what and noting the ap-

plications in which the other inventions are claimed. This appears to be the reason for the second clause of Rule 79."

Gausewitz, Richard L., "Brief in Support of Proposed Amendment to Section 103, Title 35, Patents, U. S. Code," *Journal of the Patent Office Society,* Vol. 51, No. 5 (May 1969), p. 290.

"During the period subsequent to the Report of the President's Commission on the Patent System (1966), various bills have been submitted to Congress for the contrasting purposes of effectuating or counteracting the Commission's recommendations. However, none of such bills has proposed major amendments to Section 103 of the existing law.

"The purpose of this brief is to show that such Section 103 has been used by the courts in many circuits as the vehicle by which grossly excessive numbers of patents are held invalid, and accordingly that any patent law revision should include substantial amendments to this critical section.

"This brief also proposes specific amendments to Section 103, and cites court decisions illustrating why the proposed amendments are urgently required. In addition, this brief shows that such amendments to Section 103 would do much toward effectuating a proposal made by a Senate Subcommitte during the Eighty-fourth and Eighty-fifth Congresses."

Goldsmith, S. Devalle, "The Patent Cooperation Treaty and the Revised Draft Published by the International Bureau at Geneva,"*International Lawyer,* Vol. 3 (January 1969), p. 364.

Hufstedler, S. M., "Shapes of the Law of Ideas," *Bulletin of the Copyright Society of the U. S. A.,* Vol. 16 (February 1969), p. 149.

"In re Prater (Prater, In re, 159 USPQ 583) and Patent Reform Proposals: 'Debugging the Patent Office's Administration of Computer Program Applications," *Catholic University Law Review,* Vol. 18 (Spring 1969), p. 389.

"International Law — Competition Law of the EEC—the Normal Exercise of Rights Conferred by a Patent under Laws of a Member State Is Not a Violation of the Prohibitions of Article 86 of the Treaty of Rome," *Texas International Law Forum,* Vol. 5 (Spring 1969), p. 184.

Kaul, Donald A., "File Wrapper Estoppel in Trademark Cases," *The Trademark Reporter,* Vol. 59, No. 3 (March 1969), p. 133.

"The doctrine of file wrapper estoppel is, as stated at the outset hereof, a mere branch of the law of equitable estoppel and

Congress has specifically provided that such estoppel is applicable in trademark cases. The doctrine is firmly entrenched in patent practice where it achieves the salutary goal of holding patent applicants accountable for representations and actions taken before the Patent Office by preventing such applicants from taking one position before the Patent Office to obtain a patent and subsequently taking a different position in enforcing the patent. It is submitted that trademark applicants should likewise be held accountable for representations and actions taken before the Patent Office in seeking a registration, and that such applicants should subsequently be barred by the doctrine of file wrapper estoppel from taking a different position in attempting to enforce any rights arising out of the trademark registration."

Laclavière, B., "A New Intellectual Property Union Is Born: The International Union for the Protection of New Plant Varieties," *Industrial Property* (May 1969), p. 154.

"There are therefore four members of the International Union for the Protection of New Plant Varieties at the present time.. It must be stressed, however, that, like that of the Paris Union for the Protection of Industrial Property, the character of this Convention is universal. In addition to the four other signatory States, the Union is henceforth open to the membership of States which did not participate in the 1961 Paris Conference and which may now accede to the Convention direct: any non-signatory State may address a request for accession to the Government of the Swiss Confederation. The request will then be notified to the member States of the Union and will be accepted if the Council of the Union votes in favor of it by a four-fifths majority."

Lahore, J. C., "Industrial Designs and the Copyright Act 1968—the Problem of Dual Protection," *Austin Law Journal,* Vol. 43 (April 1969), p. 139.

Lassonde, M., "La Concession d'une Licence Relative à un Brevet," *La Revue Juridique Thémis,* Vol. 3 (1968), p. 341.

Lecca, Jean, "New French Patent Law and Rules of Practice," *Journal of the Patent Office Society,* Vol. 51, No. 6 (June 1969), p. 356.

"The new French patent law and rules of practice have just entered into force on January 1, 1969 and the novelty examination will start effectively only in a few months, so that several practical questions will be solved

only after a certain lapse of time. It is however believed that the French practice will run smoothly. Some new essential features were introduced by the new patent law:

a. claims instead of resumé;
b. necessity of inventive activity;
c. certificates of utility for petty inventions;
d. unpatentability of software;
e. enlarged formal examination by the French Patent Office;
f. revision by Civil Courts of the decisions of the French Patent Office;
g. novelty examination;
h. possibility to amend the claims;
i. possibility given to third parties to discuss the patent applications;
j. restoration of lapsed patents;
k. extension of the licenses of right;
l. contributory infringement;
m. necessity to start an infringement suit by a Civil Court Action and only after a novelty examination of the involved patent;
n. possibility of a licensee to join an infringement action.

Lekus, Max, "Problems in Coining International Brand Names," *The Trademark Reporter,* Vol. 59, No. 6 (June 1969), p. 415.

"Brand name 'divining' for international purposes is fast becoming more than just a hit-or-miss game.

"While it is fairly easy to avoid dictionary rejects, further in-depth screening seems in order so as to eliminate any slang or underground meanings."

Lipper, J., "Childhood of CATV," *Ohio State Law Journal,* Vol. 30 (Spring 1969), p. 382.

Mahon, John J., "Patent Misuse: Licensing and the Control of Unpatented Articles," *Journal of the Patent Office Society,* Vol. 51, No. 7 (July 1969), p. 409.

"Frequently, the manufacturer of a particular article, component or chemical compound secures a significant process or combination patent in which the particular commodity, unpatentable in itself, may be employed. While the patent grant does not secure protection for the item itself, whose sale is quite meaningful to the patentee, the owner of the patent is desirous of using his method or combination claims to promote the sale of the product. . . .

"It is the purpose of this paper to review those cases where the defense of illegal monopolization of unpatented articles was in issue in order to ascertain to what extent the patent licensing system can encompass the unpatented commodity."

Mathély, Paul, "Letter from France," *Industrial Property* (June 1969), p. 170.

"On January 1, 1969, the new patent system instituted by the Law of January 2, 1968, came into operation.

"The previous case law will,

however, be maintained on quite a number of points.

"The principles on which that case law has been based in the past three years have remained constant, but some of the cases dealt with merit attention."

Melville, L. W., "International Patent Application?" *Law Society's Gazette,* Vol. 66 (April 1969), p. 237.

Milde, Karl F., Jr., "Can a Computer Be an 'Author' or an 'Inventor'?" *Journal of the Patent Office Society,* Vol. 51, No. 6 (June 1969), p. 378.

". . . the issue of whether the writings and discoveries of a computer should be granted copyright and patent protection is an urgent one for Congress. If Congress fails to act there is a real chance that the issue will be forced upon the courts, which must then decide this question of policy on the pure semantics of the patent and copyright clause of the Constitution.

"Even though, as we have noted, the courts will eventually have to state whether the writings or discoveries of a computer are the respective 'writings of an author' or 'discoveries of an inventor,' whether Congress speaks to this issue or not, history bears evidence that the courts will apply a different test after a decision by Congress than they would were Congress silent. In particular, the courts will seek, if possible, to follow the will of Congress.

"Since the issue of whether a computer can be an 'author' or 'inventor' is one of novel impression for the courts, and since the rationale is available for the courts to hold either way, Congress would not be speaking to the wind if it made its policy clear."

"Misappropriation Doctrine after Sears-Compco," *The Trademark Reporter,* Vol. 59 (February 1969), p. 88.

Mohopatra, B. M., "Registration of Industrial Designs," *Journal of the Patent Office Society,* Vol. 51 (January-February 1969), p. 27.

Osgood, Robert M., "The Borden Litigation—Its Impact upon the Issues of Like Grade and Quality and Competitive Injury under the Robinson-Patman Act," *The Trademark Reporter,* Vol. 59, No. 6 (June 1969), p. 423.

". . . The long battle between the Borden Company and the Federal Trade Commission serves to illustrate the legal uncertainty created by Congress in 1936. After nine years of litigation no one knows precisely whether Borden violated the Robinson-Patman Act by charging two different prices for its evaporated milk. Its case has weaved through the fed-

eral courts only to reach inconclusive results. In the process, however, some important judicial pronouncements have been made concerning the twin statutory issues of like grade and quality and competitive injury. The Supreme Court held in FTC v. Borden Co. that brand differences do not render physically identical products unlike in grade and quality. On remand, the Court of Appeals for the Fifth Circuit held there could be no finding of competitive injury when a price difference reflects no more than consumer preference. Before this comment analyzes the impact of the Borden decisions upon the Robinson-Patman Act, some background information may be in order. It shall include: a brief review of the facts involved; the structure of the act; the phases of litigation; and the issues to be considered."

"Patents: Utility Requirement for Chemical Product and Process Patents," *Oklahoma Law Review,* Vol. 22 (May 1969), p. 228.

"Presumption of Validity in Canadian Patent Law," *McGill Law Journal,* Vol. 14 (December 1968), p. 726.

Rines, David, "Do We Need a Patent System?" *Journal of the Patent Office Society,* Vol. 51, No. 8 (August 1969), p. 501.

". . . our present Supreme Court is in full agreement with the views of the Founding Fathers that it is desirable to encourage 'authors' to produce 'writings.'

"Has it been equally zealous, however, to encourage 'inventors' to make 'discoveries'? If it had been, there would have been a different attitude on the part of the great corporations toward the little inventors.

"As a commentator recently put it:

> The American copyright owner is obtaining the protection to which he justly is entitled, but the American inventor and designer are being short-changed in a grossly unfair manner. This impedes real progress in the industrial arts."

Ringer, B. A., "Recent Developments in International Copyright," *Bulletin of the Copyright Society of the U.S.A.,* Vol. 16 (April 1969), p. 223.

Rubin, E., "Copyright Law Revision and Motion Pictures," *Journal of the Beverly Hills Bar Association,* Vol. 3 (May 1969), p. 6.

Rushefsky, Norman, and Herbert I. Cantor, "FTC Section 5 Powers and the Pfizer-Cyanamid Imbroglio: Where Do We Go from Here, or 'You Ain't Seen Nothing Yet'," *Journal of the Patent Office Society,* Vol. 51, No. 7 (July 1969), p. 414.

"Basically, the Commission is

empowered to issue a cease and desist order requiring the offender to halt his prohibited act. Naturally, such 'unfair methods of competition' can be found in many situations, including the use, or misuse, of patents. In the area of unfair competition based on patents, a mere cease and desist order may be insufficient. Affirmative relief is called for, but may not be available depending, of course, on how the statutory power of the Commission is interpreted. The question, therefore, arises whether the Commission is empowered to order affirmative relief and, if so, what is the scope thereof? This article will trace the evolution of the cease and desist order to include affirmative relief, even to the extent of ordering compulsory licensing."

Sawer, G., "Commonwealth Copyright Act 1968," *Australian Law Journal,* Vol. 43 (January 1969), p. 8.

Scheller, Emil, "Management of a Trademark Operation within a Corporation," *The Trademark Reporter,* Vol. 59, No. 4 (April 1969), p. 221.

"The objective of a trademark department must at all times be to give the enterprise the best possible service, with the greatest efficiency and at the least cost. All organization and planning must be directed toward that end."

Sher, Z., "Reflections on Copyright in Developing Countries," *Bulletin of the Copyright Society of the U.S.A.,* Vol. 16 (April 1969), p. 201.

Sherman, Robert L., "Obviousness: A Question of Law or of Fact?" *Journal of the Patent Office Society,* Vol. 51, No. 9 (September 1969), p. 547.

"In conclusion, one might observe that the issue of obviousness is a hybrid question involving both fact and law. The clearest explanation of the question might be to consider it one of law which 'turns upon' the facts. The apparent conflict presently being waged among the Circuits in treating this problem might be resolved by considering the solution as herein suggested. Obviousness is based on the facts, but ultimately it is a question of law."

Stewart, James K., "The Utility Requirement in Chemical Process and Chemical Intermediate Patent Claims," *Journal of the Patent Office Society,* Vol. 51, No. 5 (May 1969), p. 269.

"This discussion will examine the patentability of chemical process and intermediate claims in light of sections 101 and 112 in each of these periods: the pre-*Bremner* era, the span between *Bremner* and *Manson,* and the stifling atmosphere of the present

and future created by the *Manson* decision."

"Symposium on Copyright and Patent Law in Honor of Professor Walter Julius Derenberg, etc.," *New York University Law Review,* Vol. 44 (May 1969), p. 447.

Ullrich, A., and T. Ullrich, "The Newly Introduced Use Requirement in Section 5 of the German Trademark Law," *The Trademark Reporter,* Vol. 59, No. 4 (April 1969), p. 232.

"The present German trademark law is based on the so-called 'provisional law.' Among its provisions which became effective at various times, Section 5, Paragraph 7, includes a rule intended to prevent oppositions based on earlier registered marks if the latter were not used within five years after their registration, or if their use was interrupted for any five-year period after registration. It is the apparent primary purpose of this rule to prevent the hopeless overcrowding of the trademark register in the German Patent Office, by many unused marks, and to facilitate the registration of new marks. . . ."

"Vending an Old Combination: A Patent Misuse-Antitrust Problem," *Georgetown Law Journal,* Vol. 57 (May 1969), p. 1057.

Weeks, James K., "Licensing Agreements: Commercial and Legal Aspects," *The Trademark Reporter,* Vol. 59, No. 3 (March 1969), p. 185.

"Far too many license agreements sacrifice clarity for detail and conciseness for creative artistry. The only result of these indulgences is that the obfuscation may inadvertently result in an insulation from legal liability, inasmuch as the agreement defies interpretation. Such must not be the aim of a workable license. Too many lawyers devote their energies to painstaking drafting in the mistaken belief that the 'airtight' contract is in the best interests of their clients. Although this may be true of some contracts (which is doubtful), it most assuredly is not where the life blood for a foreign license—flexibility—is required. Again, only proper planning and organization and a careful and skillful blending of the commercial and legal elements of licensing will achieve this desired objective."

Weiss, W. S., "Special Tax Problems of Authors, Composers and Artists," *Journal of the Beverly Hills Bar Association,* Vol. 3 (February 1969), p. 25.

Wolterbeek, J., "Principles and Practice in the Application of Industrial Property Law in Cases of Parallel Importation," *Industrial Property* (May 1969), p. 136.

"Much more attention will be paid in what follows to the trademark right than to the patent right, since it follows from the very nature of these rights that changes in economic relationships are more significant as regards the scope of trademark rights than as regards that of the patent. Moreover, the problem connected with patented products is simpler. This will be explained below. First of all, the object of these rights will be examined, followed by certain basic principles of existing law, then economic requirements, and finally the manner in which these requirements can be achieved, special attention being given to certain particular aspects such as the principles of free competition."

# NOTES

## Giles S. Rich Wins Founders Day Award for Distinguished Government Service

We are pleased to announce that Judge Giles S. Rich has been selected to receive the first Founders Day Award for Distinguished Government Service. The Award will be presented annually on Founders Day, February 11, to honor an individual who has made outstanding contributions in the industrial-intellectual property field while in government service. Eleven nominations for the Award were made by the Founders, the Donor Members and the Patrons of the Institute. The full membership of the Institute then selected the recipient from among these nominees.

Judge Rich, appointed by President Eisenhower on July 19, 1956, serves on the Court of Customs and Patent Appeals. He attended Harvard College and Columbia University School of Law, from which he received his LL.B. in 1929. He practiced patent and trademark law in New York City as a single practitioner and as a partner in the firms of Williams, Rich & Morse, and Churchill, Rich, Weymouth & Engel from 1929 to 1956. Judge Rich lectured on patent law at Columbia University 1942 to 1956 and at New York Law School in 1952. He has been Adjunct Professor of Patent Law at Georgetown University Law Center since 1963.

Judge Rich has authored articles on patents, patentability and invention and a book entitled *Patent Procurement and Exploitation,* published in 1963. Previous honors accorded Judge Rich include the Jefferson Medal of the New Jersey Patent Law Association in 1955, the Kettering Award of The PTC Research Institute in 1963, and the Freedman Foundation Patent Award of The American Institute of Chemists in 1967.

## Institute Holds Clinic on Draft PCT

On November 25, 1969, a group of innovators with special knowledge about the problems of patents and innovation here and abroad participated in an Institute Clinic on the latest draft (July 15, 1969) of the proposed Patent Cooperation Treaty. The Clinic on PCT is part of the series conducted by the Institute intended to surface generally inaccessible types of information based on the experience

of a select multidisciplinary group of specialists. The Institute is examining the latest draft of the Treaty through three coordinated mechanisms: (a) the one-day Clinic of persons experienced in innovation, (b) an analysis of responses to a mail questionnaire, and (c) a series of personal interviews.

Most of the individuals who attended the Clinic were innovators—people who play a significant role in carrying a new idea forward from conception to commercial realization. Held at the headquarters of the Institute, the Clinic included the following personnel: (1) inventors, (2) economists, (3) research administrators, (4) company executives, (5) attorneys, and (6) representatives of the federal government. They were invited to consider the short and long term impacts of the proposed Patent Cooperation Treaty.

The proceedings of the Clinic will be reported in a subsequent issue of *IDEA*.

## Brochure for Corporate Executives on the Role of the Institute Published

The Institute has recently published a small brochure on its role in technological innovation. Addressed to corporate executives, the brochure outlines the history of the Institute; its research, educational and publications programs; the uses made of its findings on the operation of the industrial and intellectual property systems, both here and abroad; and contains a brief statement of the Institute's financial and membership base and its projections for future studies.

Corporate counsel seeking information on the relevance of the Institute's work to corporate industrial property interests will find this brochure useful. Copies may be secured on request from The PTC Research Institute, The George Washington University, Washington, D.C. 20006.

## Edison Fellowship Applications Invited

Thomas Alva Edison Fellowship applications for the 1970-1971 academic year are now being accepted by the Institute. The deadline is April 15, 1970.

This Fellowship, for graduate study of the patent and related systems (including invention and innovation), is made available each year to the Institute by the Thomas Alva Edison Foundation with special assistance from the McGraw Foundation. The Fellowship is in the amount of $6,000 (plus tuition) annually.

The recipient of the Fellowship is expected to follow an approved program of research under the supervision of a member of the Research Staff of the Institute as-

signed as Counselor to the Fellow, and to assist members of the Research Staff on other relevant Institute studies.

The applicant must be a candidate for a graduate degree. Acceptance in the University as a degree candidate will be subject to the University's regular admissions procedures. This Fellowship should be particularly helpful to students and teachers specializing in law, science, engineering, business administration, political and social sciences who seek graduate experience in the patent and related systems.

Applications should be directed to The PTC Research Institute of The George Washington University, Washington, D.C. 20006. They should include (1) evidence of intellectual and personal qualifications for productive scholarship and (2) letters of recommendation from two professors with whom the applicant has studied or worked.

# Studies on Industrial-Intellectual Property in International Trade and Development

*The following trilogy, two reports (I and II) and a commentary paper (III), comprise an interim account of one phase of the Institute's continuing study of international industrial property transactions. The two reports provide the comments and suggestions of relevant foreign and U. S. experts on a range of subjects which are germane to PCT in the sense that there is a reciprocal relationship, though sometimes quite subtle, among all types of international industrial property transactions and arrangements.*

*As part of the international study, the Institute is also currently conducting a survey focused on the views and experience of innovators with respect to the latest draft (July 11, 1969) of the proposed Patent Cooperation Treaty. The results of this survey and the edited proceedings of a recent (November 25, 1969) Clinic on PCT will be published in a forthcoming issue of* IDEA. *Thus, the three papers here set forth supply our readers with a broad setting as prologue to the forthcoming Institute PCT Clinic and PCT survey reports.*

## I

# International Industrial Property Transactions: Views and Experience of Foreign Experts

L. JAMES HARRIS* AND GENE L. FINN**

### THE SETTING AND PERSPECTIVE

THIS REPORT IS ONE OF SEVERAL emerging from studies being conducted by The PTC Research Institute on the role of industrial-

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**Research Associate, The PTC Research Institute; Chief Economist, Securities & Exchange Commission. The views expressed herein are those of the author and do not necessarily reflect the views of the Commission.

intellectual property protection in international trade and development. The purpose of these studies is to illuminate the challenges and opportunities presented by foreign markets to American interests and to gather information on the impact of existing and proposed national and supranational legislative and treaty arrangements.

The views and experience of 30 experts in foreign industrial property matters are synoptically presented. All the persons in the sample were known to be experts either associated with foreign governments or in foreign industry or private practice, or located in the U.S. and engaged in foreign industrial property matters. A group of experts in foreign industry was also canvassed in another study in our international series, a study directed primarily to company experience.[1]

Inquiry was directed to experts for primarily three reasons: (a) their opinions are informed; (b) their needs and reactions have strong influence on their clients; and (c) their own behavior has a profound effect on international industrial property protection. Thus, this questionnaire[2] survey of domestic and foreign specialists is an essential professional element in this current series of studies of international industrial property. To overcome international industrial property problems major efforts are now being made, such as the proposed Patent Cooperation Treaty and suggested alternatives. A survey of experts should provide useful additional insights, reveal other problems and, hopefully, contribute toward their solution.

The questions in the several surveys in our current international series follow a common pattern in order to facilitate correlation among responses. The questionnaires are divided into eight discrete but interrelated sections which reflect the broad purposes of the inquiry. The questions are intended to (a) focus the research efforts of the Institute and others; (b) elicit the implications of present and proposed national and supranational legislative and treaty arrangements; and (c) test possible approaches to the improvement of these arrangements. The major subjects covered in this survey concern

(1) Problems faced by patentees in securing industrial property rights abroad;
(2) Inadequacies of present laws and practices;
(3) Changes suggested by experts in international agreements;
(4) Alteration of industrial property protection by proposed inter-

[1] See Robert B. Bangs, "Use of Industrial Property in Foreign Countries—A Further Report," p. 553 of this issue.

[2] A copy of the questionnaire appears at the end of this report.

national agreements (including probable effect on the volume of foreign filings if PCT goes into force);
(5) Experience of experts with provisions of foreign licensing agreements;
(6) Experience of experts with abandonment of foreign applications because time proved a lack of commercial value or because prior art was discovered during prosecution;
(7) National policy and practice relating to governmental approval of industrial property transactions; and
(8) Factors generally taken into account by experts in determining licensing rates.

## Why Patent Protection Abroad?

One of the major methods for the transfer of technology in foreign commerce, and one of the most important ways by which patent protection is utilized, is the license route. There are, of course, other reasons for seeking patent protection abroad, such as a defensive measure to cover imports which embody the invention or for cross-licensing purposes. Generally, however, there is uppermost in the minds of patentees, whether domestic or foreign, the potential for advantageous commercial opportunities through licensing. In view of the importance of foreign licensing, respondents were asked a seven-part question regarding their experience with the provisions in such agreements: "What has been your general experience with reference to the provisions in foreign licensing agreements relating to the following: (a) Discontinuance of rights to future use of know-how after termination of agreement; (b) Access to new developments (of licensee or licensor); (c) Supervision and maintenance of quality standards; (d) Exclusivity as to manufacture, use and sale; (e ) Terms of compensation (lump sum royalty, etc.); (f) Who (licensee or licensor) maintains (bears expense of) the industrial property, and who defends against infringement?; and (g) Provision for government requirements regarding royalties, remittances abroad, etc."

The respondents unanimously agree that the use of know-how could not be controlled after termination of the agreement. Sixty-three percent of our respondents do not uniformly include such provisions in their contracts. We learned that these provisions exercise little more than moral suasion. When they are employed, it is to declare formally the intention of the parties.

To provide access to new developments the usual practice followed

by the experts is to incorporate provisions for the mutual exchange of rights. Nearly 80 percent consider such provisions desirable. In some cases, mutual exchange is not important because of a lack of interest by either the licensor or the licensee. A Brazilian expert believes that "New developments of licensor are generally of interest to the licensee, but seldom the other way around." On the other hand, a French expert stresses the interest of licensors and advises the inclusion of the following provisions: "(a) improvements made by licensee belong to licensor who is free to use them anywhere and to grant rights to his other licensees; (b) if licensee insists on the right to file patents in his name to cover improvements discovered by him, he shall grant a free license to licensor on such improvements with the right to sublicense his other licensees. In case of termination of the main agreement, licensor shall have the right to acquire from his licensee a license to continue using such improvements but against the payment of a royalty." A note of caution is sounded by an expert in the Netherlands. Although he agrees that such provisions are important, he thinks that the agreements "should not extend over too long a period, as quite unforeseeable developments outside the realm of typical 'additional' improvements might otherwise be covered."

Foreign experts differ considerably on the utilization and effectiveness of provisions for the supervision and maintenance of quality standards, although over 60 percent do include these provisions. A Netherlands expert states: "Stipulations for supervision and maintenance of quality standards are hardly ever [included] in license agreements in Holland." A French expert comments to the contrary: "This provision has proven as very important and useful." Similarly, there is considerable variation on which party, if any, is responsible for the supervision and maintenance. In Japan, for example, it appears to be the responsibility of the licensee. In Argentina, however, it is considered ". . . very advisable that quality standard of the Argentine licensee be supervised and maintained by the foreign licensor." In another Latin American country, Brazil, there is strong objection to any overseeing. We were informed unequivocally that such provisions are "neither effective nor tolerated."

The general experience on exclusivity as to manufacture, use and sale was summed up by a French expert: ". . . Exclusivity [is] always advised, unless the licensee cannot cover all the needs of the market." Only a single respondent indicated that in his experience nonexclusivity is the rule, but even he admitted that in one instance it ". . . led to such competition that the bottom dropped out of the market to such

an extent that some licensees had difficulties in paying the royalties. This invites unlicensed competition. . ." Some of the respondents referred to the "public interest" aspects of this type of clause, others pointed out that the "government and local laws" must be taken into consideration. Among the local laws cited are the compulsory licensing provisions in the patent laws of certain countries (e.g., the Philippines), and the royalty provisions in the export regulations in several Latin American countries.

The terms of compensation in most agreements, according to our foreign informants, provide for a lump-sum royalty and periodic payments thereafter, based on production or sales. Clearly, these terms appear to be favored. The lump sum is usually justified by the research and development outlays and the amount of the initial know-how contribution. The method of payment, however, may be affected by local regulations or restrictions on the export of capital. To illustrate: when no foreign payment is to be made from Chile then the agreement can be negotiated freely by the parties and does not require approval of the Chilean Central Bank. A Swiss expert put it this way: "Lump sum plus running royalties only for industrial countries with free currency exchange. Other countries paid up royalty; according to situation, payment by installments."

Provisions for maintenance and defense against infringement usually place a heavier burden on the licensor. Most of the foreign experts, 77 percent, indicated that the licensor maintains the industrial property right. However, the responsibility for defense against infringement was not as evident. Approximately half of the respondents state that the licensor defends against infringement; the remainder indicate that the defense is either shared, or may be borne by either party, depending upon the circumstances. A Danish expert described it like this: "Licensor pays annuities (maintenance fees). Parties normally share expenses re defence (i.e. lawsuits). Provisions very much depend on identity of parties (big company vs. small inventor), nature of invention, location of licensee, etc." Furthermore, it appears that the burden to defend assumed by the licensor can be limited in various ways. For example, he may agree to defend but not to the extent of prosecuting every infringement, or as a Dutch expert put it: "The patentee . . . gives a hold-harmless under which he undertakes to assist and advise in the defense and accepts liability for damages up to the limit of all or part of the royalties paid."

Because a number of countries require governmental approval of royalty rates and of remittances made abroad, the experts usually

include specific provisions covering such arrangements. Where there are such government regulations, generally the provisions in the agreements have to be approved by the central bank or by the exchange control authority. Approval is normally required in countries short of foreign exchange, with balance of payments difficulties, or with directed or controlled economies. A Dutch expert noted that "the subject matter is under review by the OECD, and governments have been asked to submit reports."

## Government Approval: An Exercise of National Sovereignty

Earlier studies by the Institute,[3] and others, have directed attention to prerogatives or privileges of national sovereignty that sometimes burden international transactions relating to industrial property. In

[3] J. N. Behrman, "A Brief Look at Foreign Licensing by European Companies," *PTC J. Res. & Ed. (IDEA)*, Vol. 5, No. 2 (Summer 1961), pp. 130-143; "Advantages and Disadvantages of Foreign Licensing," *PTC J. Res. & Ed. (IDEA)*, Vol. 2, No. 1 (March 1958), pp. 137-158; "Licensing Abroad Under Patents, Trademarks, and Know-How by U.S. Companies," *PTC J. Res. & Ed. (IDEA)*, Vol. 2, No. 2 (June 1958), pp. 181-277; "Foreign Licensing," *PTC J. Res. & Ed. (IDEA)*, Vol. 1, No. 2 (December 1957), pp. 220-243; "Foreign Licensing and Investment in U.S. Foreign Economic Policy," *PTC J. Res. & Ed. (IDEA)*, Vol. 4, No. 2 (Summer 1960), pp. 150-172; "U.S. Companies as Licensees under Foreign-Owned Patents, Trademarks, and Know-How," *PTC J. Res. & Ed. (IDEA)*, Vol. 5, No. 1 (Spring 1961), pp. 16-29; "U.S. Government Controls over Export of Technical Data," *IDEA*, Vol. 8, No. 3 (Fall 1964), pp. 303-315.

J. N. Behrman and W. E. Schmidt, "New Data on Foreign Licensing," *PTC J. Res. & Ed. (IDEA)*, Vol. 3, No. 4 (Winter 1959), pp. 357-388.

W. E. Schmidt, "Foreign Licensing and the Investment Guaranty Program," *PTC J. Res. & Ed. (IDEA)*, Vol. 5, No. 1 (Spring 1961), pp. 40-51.

L. J. Harris, "The First Common Market: A Reinterpretation of the [British] Commonwealth Experience in Industrial Property," *PTC J. Res. & Ed. (IDEA)*, Vol. 6, No. 2 (Summer 1962), pp. 199-224; "Notes on Informed European Opinion Regarding Industrial Property—Summer 1967," *IDEA*, Vol. 11, No. 3 (Fall 1967), pp. 289-305.

L. J. Harris and I. Siegel, "Industrial Property in Latin American Development," *PTC J. Res. & Ed. (IDEA)*, Vol. 6, No. 3 (Fall 1962), pp. 327-346; "Positive Competition and Antitrust in Foreign Transactions Involving Industrial Property," *PTC J. Res. & Ed. (IDEA)*, Vol. 7, No. 3 (Fall 1963), pp. 253-276; "Latin Americans View Their Own National Industrial Property Systems," *IDEA*, Vol. 9, No. 1 (Spring 1965), pp. 25-34.

L. G. Kastriner, "Protection Against Imports Which Undermine the Value of a United States Patent," *PTC J. Res. & Ed. (IDEA)*, Vol. 7, No. 4 (Winter 1963-1964, pp. 488-496.

J. K. Connor, "Taxation of the Foreign Licensor in Australia," *IDEA*, Vol. 8, No. 1 (Spring 1964), pp. 24-44.

M. J. F. Palmer, "Taxation of the Foreign Licensor in the United Kingdom,"

the form of governmental approval requirements, such prerogatives may provide important insight into the national attitude toward commerce with foreigners: National decrees making demands of a general nature reflect an underlying attitude toward foreign transactions. Such general perquisites are essentially political in character and, because they are so amorphous, present formidable barriers to international trade. On the other hand, specific, technical approval requirements, though inconvenient to meet and generally compulsory, are precisely defined (with a minimum of political content) and can, in most cases, be accommodated.

We pursued governmental approval characteristics with two interrelated questions. One, discussed in the previous section of this report, concerned actual experience with approval provisions incorporated in licensing agreements. The other question asked for a description of the requirements: "If any part of international industrial property transactions in your country requires government approval, will you please describe?" We sought by means of these questions to determine (a) industrial property national policy and procedure and (b) how that policy and procedure was, in fact, implemented. In this way we were able to compare the national disposition with the specific provisions used to meet governmental control requirements.

The returns on the policy question fall into four categories: (a) no governmental approval necessary; (b) approval needed because of currency exchange or balance of payments considerations; (c) approval determined by national defense needs; and (d) miscellaneous reasons (very few responses are included in this category). Many experts reported that no governmental approval of contracts is necessary and/or that approval is determined by considerations of national defense. It must be assumed that governments can always invoke the third category type of approval.

In those countries that require governmental approval, the explanation given generally reflected currency exchange or balance of payments considerations. Countries in which no governmental approval is required (except for defense purposes) include both industrialized and industrializing countries (e. g. Denmark, Netherlands, Germany, Philippines and Argentina). In India, France, Brazil, Chile and Japan, governmental approval is related to exchange control problems. For

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*IDEA,* Vol. 9, No. 3 (Fall 1965), pp. 377-400.

P. C. Alegi, "Taxation of Foreign Licensors in Italy," *IDEA,* Vol. 12, No. 1 (Spring 1968), pp. 643-655.

P. E. Rood, "Taxation of the Foreign Licensor in South Africa," *IDEA,* Vol. 13, No. 2 (Summer 1969), pp. 165-193.

example, an Indian expert informed us that ". . . wherever foreign remittance is involved, permission of the exchange control authorities has to be obtained. The same remarks apply to filing of applications on behalf of Indian clients in foreign countries." In France, according to a highly regarded respondent, when exchange control was reinstituted "any transactions between a French citizen or a French resident with a foreigner (company or individual) are submitted to the authorization of the bank of France."

One of the most informative responses we received from the experts in countries that require governmental approval for currency exchange and balance of payments purposes, was from a Chilean. He advised that the government, through the central bank, controls "the technical fees or license fees or royalties payable on contracts allowing the use of trademarks and/or patents and/or know-how." This expert went on to say that the central bank controls "the amount of the percentage or fixed payment . . . [and] very severely [controls] and even denies approval to such agreements when they are between principal and a subsidiary." Certain government officials believe that, in some cases, proceeds are paid out as expenses when they should be accruing as profits of the subsidiary. This affects the taxes paid since "Chilean income tax law demands a 37.5 percent withholding additional income tax at the time on which any such payment is credited or paid to licensor." He further pointed out that the percentage which might be reasonable elsewhere might be considered unreasonable in Chile because "the selling price of the product on which the percentage is based may be in strong currency comparison, very much higher in Chile than in the other country."

On the other hand, according to a Japanese expert, his country requires approval of transactions for foreign exchange purposes on "all introduction (import) of foreign technics. . . ." However, he goes on to modify this statement: "But, actually, they are approved almost automatically with some exceptions where a thorough examination is required if they seem to be contrary to our defense interest or to our industrial policy. For example, aeroplanes, arms, gunpowder, nuclear power, space science, computer and petroleum chemistry. . . ." Where the purpose of approval is foreign exchange and balance of payments, as in the case of Chile, approvals are required in a relatively narrow area and are strictly construed, whereas in Japan, though required on a much broader scale, approvals are relatively automatic. In the case of Japan, however, the defense interest (or industrial policy) may be rather broadly interpreted and is open to possible political (rather

than technical) construction. This could make an otherwise automatic, routine approval unpredictable.

## How Do You Compensate Foreign Licensors?

Much interest has been shown in the compensation derived from the licensing of industrial property. In another study of the Institute (referred to in the Institute's research program as the "Foreign Licensing" study) closely related to this study, the weight accorded factors entering into the compensation in licensing agreements are being obtained from a sample of American companies engaged in foreign trade.[4] A similar question on factors entering into compensation decisions was asked of the foreign experts in the study we are reporting on here.

The experts were asked to provide ". . . brief comments on the weight . . . generally accorded the factors entering into decisions relative to the compensation foreign licensees should pay for use of industrial rights (e.g., costs, competition, taxes)." Although they generally did not give specific weights, they did list many factors. The responses were surprisingly comprehensive. For an example from an industrializing country, India, the factors enumerated by an expert were: "(a) nature of the associated know-how required; (b) availability of local know-how; (c) type of industry, large, small or complex; (d) is the manufacture set up in collaboration or not; (e) equity participation by the foreign company; (f) volume of turnover; (g) availability of know-how from other sources; (h) taxes to be paid on royalty both at home and abroad; (i) generally speaking two types of royalties are charged, one for the use of patents and the other for the know-how and continued supply of know-how." The response of a Japanese expert (representing an industrialized country) included as major considerations: "(a) the value of the invention; (b) whether it is an exclusive license or non-exclusive license; (c) whether it is a completely developed invention or not; (d) the cost for development of the invention, and the expense defrayed to obtain the licensing agreement; (e) the amount of prospective profit which the licensee would get; and (f) the cost for advertisement and publicity work." A Dutch expert gave a less informative, but frank (and perhaps amusing), response: "very briefly: what the market will bear."

The relative sophistication and detail of the responses, the degree of

[4] A report on Compensation Patterns, one of the subjects examined in the "Foreign Licensing" study, is scheduled for the next issue of *IDEA*.

accord among the experts, and the correlation of their answers with those to other questions, lead us to believe that this is a very active subject on which there is considerable agreement. Differences were expressed, but most of these could be attributed to two major factors: (a) the degree of the country's industrial development and (b) its unique economic, social and political characteristics and institutions.

## Securing Industrial Property Protection Abroad: Problems, Inadequacies, and Proposed Changes

### *Problems*

We discern four major problem areas: They relate to (a) the costs of obtaining, maintaining, or protecting industrial property, (b) the quality of the protection obtained, (c) the complexities resulting from different national requirements, and (d) the element of time concerning some aspect of processing or procedure. Indeed, all four are often referred to in a single response. A Swiss expert cites ". . . multiplicity of national applications, searches and examinations, multiplicity of patent laws and differences of interpretations, long delays until granting of patents, decreasing quality of examination in many countries, necessitating complementary search by patentee and interested parties." An eminent Dutch expert focused on litigation, but other problems are clearly evident. He states, "Litigation is either too expensive (in the United Kingdom) or too time consuming (in the Netherlands) or beset by factors irrelevant to the issue . . . (in the USA)." He also complains that, "for the same invention different specifications and different presentation of patentability is required from one country to the next." Other experts limit themselves to a single problem. One decries the duplication of searching in major countries. Another, a Philippine expert, charges that differences in language and formalities force the use of foreign local law firms, which adds to the expense.

Concern over costs appears equally divided among (a) obtaining, (b) maintaining, and (c) protecting industrial property rights. This uneasiness or anxiety about costs, expressed by 16 percent of the respondents, is not limited to any geographical area. It is generally associated with the confusion attendant upon meeting many different national requirements. Latin American experts, troubled by the high cost of filing and of prosecuting applications in the U.S., also score variations in the laws and the patent office examination proceedings. At the same time, they emphasize the desirability of a strong examina-

tion because it yields a good patent. European experts are similarly concerned. However, they also are critical of the variations in the standards of patentability, the duplication in searching, and the costs of litigation.

We discern a major problem relating to the quality of the protection obtained. Approximately 32 percent of the experts are concerned about this problem, which involves both the validity and scope of the patent shelter. For example, search in the United Kingdom is disparaged by a Danish expert because it is usually confined to documents in the English language, making the protection of questionable value. The experts are not impressed with the protection in those countries in which the examination does not insure, with reasonable certainty, the validity and scope of the patent right. Even respondents who express the belief that the quality of examination is deteriorating recommend that examination be adopted by registration countries. Yet, experts from the Far East and Europe complain that the tests for novelty and for obviousness are too severe, and sometimes arbitrary. The censure of one French expert recalls our experience with American critics: ". . . Examiners who are in charge of the files and who have to appreciate patentability of the inventions, lack knowledge and practical experience of the actual technical problems." This type of comment appears to be most prevalent against examiners in those countries which examine for "inventive height."

Frustrating the needs of patentees to obtain the best foreign protection at the lowest possible cost may be time delays or time constraints. A surprisingly large number, 60 percent, of the experts indicate that time factors presented a problem. Formalities associated with patent filing abroad and practical commercial considerations often do not allow patentees adequate time to make a proper decision within the priority year. Decisions to file abroad may be affected by the time consumed in meeting foreign requirements for (a) patent office processing or (b) procedures in court. Let us cite a few examples. An expert from Denmark states that, "When filing an application in the USA it is a burdensome complication that the patent application, specification and claims must be signed by applicant. In fact, the foreign applicant (or his attorney) must either be fully conversant with all intricacies of USA patent law and practice—and must have full command of the English language—in order to draft the application correctly, or else he must send his draft to a USA attorney for revision. The first alternative requires qualifications which normally cannot be expected from foreign applicants and the second alternative necessi-

tates the return of the application as revised to applicant and involves delay of the proceedings at a stage (end of priority term) when time is very limited." Another processing problem mentioned relates to delays in obtaining patent office action or search reports. Some respondents (Denmark, Switzerland, Netherlands, U.S. and Japan) claim that decisions on filings in foreign countries sometimes have to be made without an adequate knowledge of prior art.

The problem of delay in processing the patent by the office or the prospect of long-drawn-out court proceedings may deter the applicants from pursuing the choice course of action. For example, a respondent from India states that in Japan, as a result of the arbitrary test of novelty, "the applicant has to decide whether to file an appeal or to resort to utility model application. The former may take several years to be concluded and the latter course results in limited protection." Experts are equally concerned about the time consumed in protracted proceedings in the courts. One expert (from Japan) states, categorically, that the time involved in court proceedings discourages legal action by foreign applicants.

A key question relating to time that we asked the foreign experts was this: "What has been your experience regarding the abandonment of foreign applications because time has proven the lack of commercial value or because prior art was discovered during prosecution?" Along with this question we added a brief explanatory comment: "In some quarters it is assumed that applicants have insufficient knowledge to make an early decision. If this assumption is correct, what kind of international arrangement would be desirable to provide adequate time?" In response to this question, the proposed PCT extension to 20 months of the 12-month Paris Convention period was cited as an important advantage. This would lighten the burden on both the applicants and the national offices, particularly where patents are sought in a large number of countries for the same invention. The experience of a Philippine expert points up a very practical aspect. He says that "the tremendous backlog of patent application in the Patent Office estimated to be about four years on the average usually finds the foreign patent applicant disinterested when the time for examination of his application comes."

The answers to this query indicate confidence in foreign prior art searches, when they are done, but evidence dissatisfaction with the lag in the accumulation of information on the commercial value of inventions. In general, the experts replied that, with adequate search, prior art is usually disclosed during patent office proceedings, and that

later abandonment is not much of a problem. On the other hand, most stress the difficulty of expeditiously determining the commercial value of the invention. Some advocate an extension of the Convention period from 12 months to from 18 to 24 months. It might be noted that a survey of foreign inventors recently undertaken by the Institute yielded essentially the same proposal.[5]

Contrary to our expectations, there were not many new or unique suggestions on how "to provide adequate time." A number of respondents, however, were favorably impressed with the PCT approach, despite reservations about certain provisions in the proposed treaty. One respondent did lay stress on a very practical institutional approach. He proposed an international arrangement by which countries would set up licensing offices to act as liaison between a foreign patent applicant and a local prospective user of the invention.

*Inadequacies*

To circumscribe the problem areas more definitively and to provide insight on the relation between problem and practice, we made a special effort to obtain information on the attitude and experience of experts toward the particular laws and practices in individual countries. The question was asked: "Do you feel that present laws and practices of certain countries provide inadequate industrial property protection?" The respondents, as expected, listed a goodly and variegated number of inadequacies. But, on closer examination, it became evident to us that these were by no means frivolous. The inadequacies referred to, in most cases, were intimately related to the actual problems they had experienced. This association was quite clear where the type of protection available, or a limit on the subject matter protected, was at issue. The following are some examples of the kinds of complaints we received: No protection is provided by certain countries (a) for pharmaceutical or medical products or methods;[6] (b) for compositions of matter; (c) for products related to food and medicine; (d) insufficient protection in countries which provide process patents only, particularly in the chemical field.

Other inadequacies complained of involve insufficiencies of certain national formalities and procedures, or lack of them. For example, a

[5] L. James Harris and Gene L. Finn, "Foreign Inventors' Behavior Under U.S. and Foreign Patent Systems," *IDEA*, Vol. 12, No. 4 (Winter 1968-69), pp. 1053-1067.

[6] Italy was a favorite target.

major criticism is that some countries have no examination system at all. In this category, the respondents most often group Italy and Belgium, questioning the quality of their unexamined patents. The problem of no examination or of inadequate examination was referred to often, and we are informed with a relatively common judgment in this regard.

It appears that inadequate industrial property utilization in certain less industrialized areas, such as Latin America and Spain, may result from impractical legislative provisions. To quote a Scandinavian expert on his experience with working requirements: "In many cases (e.g. computers or large printing machines, automobiles, aircraft, etc.) there are simply no practical or economical possibilities for working the invention by manufacturing in the country." The patent laws in a number of the less developed countries are, apparently, not in accord with the economic, technological, and social needs of these states; the responses underscore the need for the adoption of patent laws that would strengthen and improve their less industrialized economies.[7] Having been shaped by the patent laws in more advanced countries, the laws of the less developed are, in many cases, little more than aspiration (articulation in the statutes of a strong desire for industrialization by the more sophisticated citizenry). These laws should be changed to conform better with current realities. The native R&D is of little account and basic technology is needed. Foreigners must be encouraged to introduce their technology while indigenous creativity is nurtured—effective roles that a proper national patent system can play in the development of the less industrialized countries.[8]

### *Proposed Changes in Existing International Agreements*

In the previous sections, we presented the view of experts on the problems and the inadequacies of foreign industrial property protection. Now we turn to the suggestions for improvement which accompanied their views. In one question respondents were asked whether or not changes or amendments should be made in the following international agreements to secure better protection for industrial property:

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[7] See BIRPI, *Model Laws for Developing Countries on Inventions* (Geneva: 1965).

[8] S. P. Ladas, "Existing Uniformity of Industrial Property Laws and Revised Patent of Introduction: Means for Transfer of Technical Information to Less Industrialized Countries," *IDEA,* Vol. 12, Conference No. (1968), pp. 163-175.

(1) The Madrid Agreement on the International Registration of Trademarks;
(2) The Hague Agreement on International Deposit of Industrial Designs;
(3) The Arrangement of Nice Concerning the International Classification of Trademarks;
(4) The European Conventions (Council of Europe) relating to patent application formalities and the international classification of patents.

Comment was also invited on international agreements in the industrial property field not included in our list.

The views of the foreign experts reflect, in general, the sentiment that international agreements do seek to remedy existing inadequacies and resultant problems. As might be expected, one of the most common complaints is that not enough countries adhere to the individual agreements. Another area of discontent is the delay in the enactment of implementing national legislation. One expert from Germany argues that, immediately on ratification by the state, international agreements relating to industrial property should be regarded as national law. He claims that some countries wait many years before passing enabling national statutes and that postponing international agreements for long periods is not in the national or international interest.

The responses were generally favorable on existing international agreements, but conflicts between the goal of the international arrangements and the national interest were frequently cited. For example, administrative unfeasibility was directed to the Madrid Agreement. One expert from the Netherlands points out that the registration of trademarks has been so facilitated by the Agreement that ". . . the proliferation of registrations caused by the Madrid Agreement reduces its usefulness. Non-use cancellation should be provided for to develop it into a more useful instrument." As experienced legal draftsmen are well aware, agreements providing relief for one difficulty may upset the balance elsewhere and introduce another (and sometimes more acute) distress. Thus, although the Madrid Agreement offers certain benefits, the consensus favors the employment of some means to protect patent office registers from becoming overburdened with the deadwood occasioned by the Agreement.

All but one of the experts commenting on the Hague Agreement on the International Deposit of Industrial Designs believe that it should not be altered. The other agreements, however, did not fare as well.

Complaints concerning a dearth of adhering countries are directed particularly to the Madrid Agreement and to the Arrangement of Nice Concerning the International Classification of Trademarks. Both the International Classification of Trademarks and the International Classification of Patents were said to require another type of change. A Danish expert expressed it this way: "The international classification must obviously be followed up and extended to keep abreast with the technological development."

The criticism that international agreements conflict, in certain respects, with national goals warrants further attention. As one expert put it, on a deeper level the adequacy of a country's protection could be evaluated only in terms of its national goals. Thus, support was encountered for regional agreements among countries with similar or complementary national goals. Such agreements may represent a more fruitful near-term approach to specific problems than international agreements which include all countries, or many countries, located in different regions. A Brazilian expert, on the other hand, is strongly opposed to regional conventions. Implicit in his preference for international arrangements, however, is a toleration for regional arrangements as stepping stones. The significant advantage he sees in regional arrangements is that they ". . . divide the stresses for creating and operating an efficient international office."

Most of the problems noted on the two European Conventions[9] relate to the international classification of patents, and are primarily concerned with the technical progress of the countries involved. An Indian expert is of the opinion that international classification of patents would ". . . indeed be helpful, but in many countries the difficulty has arisen because of changeover from the existing classification . . . in many countries the state of technical knowledge is not such as to introduce international classification. However, in industrially advanced countries, it is a must." Other experts are more concerned with the difficulty of keeping classifications up to date.

One general impression warrants a special word. Some European experts seem to display an underlying distrust of economic competition. While they strive to emulate American business rivalry, these Europeans appear to be less attracted to the virtues of competition. This yearning for economic cooperation may have prompted the laconic response of an eminent European expert: "The Rome Treaty (Common Market Treaty): The antitrust measures should be abol-

[9] Conventions of the Council of Europe relating to: (1) formalities required for patent application and (2) international classification of patents for invention.

ished. They affect right protection and are a nuisance for good license agreements."

## Proposed or Newly Established International or Supranational Arrangements: Will They Alter Industrial Property Protection?

In the previous section, we showed a relatively strong tide running in favor of international agreements and of arrangements that contemplate harmonization. In this section, three out of the five arrangements that will be considered are of a group or supranational character. Although we should not overlook the progress that has been made in group compacts, there is no international agreement wherein a patent of one country is automatically valid in another, except in the African and Malagasy Office for the Protection of Industrial Property. The Nordic countries (Denmark, Finland, Norway and Sweden) have harmonized their patent laws, but have not yet enacted Section 3[10] of the Nordic Convention; and the EEC Patent Convention, dormant since the publication of a draft in 1962, only very recently showed signs of renewed life. Indeed, the Common Market countries are now exploring a broader patent arrangement with other European countries. In an earlier paper, the fascination of Europeans with harmonization and international accords was reported, but it was also noted that "group arangements cannot yet be counted out."[11] The potential for all three types of cooperation is evident in the responses of the foreign experts to our current survey.

Five international agreements were listed in our questionnaire, and the experts were asked whether the agreements, if they became effective, would alter industrial property protection. They were encouraged, if they preferred modifications, to include them in their responses. The agreements and arrangements comprised the Patent Cooperation Treaty; the World International Property Organization; the Scandinavian Patent Union; the African-Malagasy Industrial Property Office; and the EEC Patent Convention.

The reaction to the proposed Patent Cooperation Treaty is mixed. (This response was to the second draft of PCT, the latest model

[10] Section 3 provides that a patent granted in any one of the Nordic countries could automatically be issued in some or all of the others on request of the patentee.

[11] L. James Harris, "Notes on Informed European Opinion Regarding Industrial Property—Summer 1967," *IDEA*, Vol. 11, No. 3 (Fall 1967), pp. 289-305.

available at the time of the mailing of the questionnaires.) Some believe that PCT would be very helpful because it would simplify procedures. Others think it would be too expensive, or that it would interfere with national practice. A Japanese expert anticipates a more profound effect. He suggests that although the PCT is aimed at a unification of formalities and not of substantive laws, "its provision of exchanging search reports and preliminary examination reports" would gradually affect substantive laws and practice, making them more uniform. The reactions of foreign experts to the second draft appear in many respects to be similar to those of American specialists to the subsequent draft.[12] Athene sprang full-grown from the brow of Zeus, but even our more gifted mortals require time to nurture their brainchildren.

The experts were either neutral or commented favorably on WIPO and the Scandinavian Patent Union. The African-Malagasy Industrial Property Office was not treated as well. There is general consensus that WIPO would have no effect on industrial property rights, although some did add that it would provide a useful forum for encouraging greater uniformity in industrial property law. Views on the Scandinavian Patent Union are quite optimistic. Most experts think that this arrangement will simplify the filing and processing of patent applications, but they do not expect it to affect protection. Among the more intangible benefits noted is the example the Scandinavian Union would set for other countries. Due to limited experience with the African-Malagasy Industrial Property Office, most of the respondents are unimpressed—perhaps, because this Office has not been in operation very long.

Some rather optimistic appraisals were received on the European Common Market Patent Convention. Most of the respondents anticipate a simplification of the filing and processing of patent applications and a broader coverage, including composition of matter, pharmaceutical, and agricultural patents. As in the case of the other proposed agreements, judgment is made contingent on future negotiations and the final form of agreement. Although most believe the Convention would be helpful, some have reservations. The reservation of a French expert is representative: "To be really effective and equitable, the convention should provide one single office to make [novelty] searches for all patents whatever be the country they come from," because

[12] Report of Committee No. 102, "International Patent Treaties and Laws" (Patent Cooperation Treaty), *1969 Committee Reports, Section of Patent, Trademark and Copyright Law,* American Bar Association (1969).

"novelty searches, when executed in different countries, give different results."

### . . . PARTICULARLY, THE PARIS UNION CONVENTION

Because of the historic importance of the Paris Convention to international industrial property transactions, respondents were asked in a separate question to "List changes or amendments (if any) you think desirable to the Paris Union International Convention for the Protection of Industrial Property." The replies most frequently suggest an increase in the convention priority period from the present 12 to from 18 to 24 months. This suggestion corresponds with the replies of the respondents to another question in our questionnaire on problems faced by patentees in filing patents or obtaining industrial property protection abroad, which was considered in a previous section of this paper.

To give the reader an idea of the wide range of suggestions on the Paris Convention made by the foreign experts, the following examples are quoted:

From a Dane: "Uniform provisions re working and marking of patentable goods most desirable."

From a Swiss: "Extend the period after which the trademark may become incontestable from five to seven years." And from the same respondent: "Extended protection of well-known trade names desirable."

From another Swiss: "Prohibition of special compulsory licenses." He went on to recommend that "Substance protection for pharmaceuticals in all countries to be allowed" and "Make patent duration 20 years from grant."

From a Brazilian: "Add a stipulation allowing registration in all countries of marks or signs comprehending sounds and tri-dimensional shapes." And another from this specialist: ". . . in Article 12 include the deletion of application filing fees, and keeping only those referring to maintenance of rights granted by patents or registration of devices."

From a Hungarian: "It would be reasonable if the Convention would oblige the authorities for the protection of industrial property of member-countries to send to each other the specifications of patents, industrial designs and utility models as well as Gazettes."

In appraising the desirability of changes to the Paris Convention a Netherlands expert stresses feasibility and comes to the following conclusion: "There are hardly any issues left which, in the absence of

common doctrines, can be expected to meet unanimous agreement. It seems that restricted Unions promise more direct results."

## CONCLUSIONS

We are impressed with the commonality of the problems which trouble the foreign experts. Whether protection is sought in the industrialized or in the less developed countries, problems relating to (a) costs, (b) quality, (c) complexities, and (d) time are of major concern. Respondents from the lesser developed countries are keenly aware of their countries' industrial shortcomings; in almost every reply they express their need directly or indirectly for local R&D development—and they clearly recognize the role that patents can play in encouraging local initiative and in rallying foreign industry to introduce its technology. There is considerable reference to the effect of industrial property transactions on trade and economic development. The problem of time appears to pervade the responses from experts in both the developed and the lesser developed countries. While suggesting other ideas for improvements, common reference is made to a need for extending the Paris Convention period from 12 to 18 or 24 months.

The problems of the respondents appear to be a direct consequence of the inadequacies they encounter in the industrial property laws and practices. These problems (which we categorize as relating to costs, quality, complexities, and time) appear, for the most part, to be due to the many national patent systems and the different laws and the unique requirements of each country. Although most of the experts are concerned with the improvement of their patent systems and those of other countries, they are realists and appreciate the limitations of progress. There is a positive attitude toward harmonization and international arrangements, despite strong reservations with respect to particular provisions in certain proposed treaties, such as PCT. Contrary to our finding in the summer of 1967,[13] there now seems to be a growing interest in group compacts. While expressing reservations, representatives of the industrialized countries are generally appreciative of the PCT efforts of BIRPI.

Perhaps because these experts are engaged in international transactions involving the actual transfer of technical information, they look toward harmonization, international accords, and group arrangements to improve patent transactions. Both industrialized and less

[13] *Supra* note 8.

industrialized countries' representatives appear to be very conscious of the importance of the industrial property systems in the transfer of technical information internationally. Respondents recognize, nevertheless, the importance of effective national patent systems within the international treaty framework. Suggestions for improvement run from matters of examination and disclosure procedures in the patent office to litigation in the courts and to diffusion and disposition of innovations. A close correspondence emerges between the problems, inadequacies, and the remedies proposed by the experts. But the overriding importance to respondents of adequate national patent legislation is very evident and is usually stressed.

Foreign licensing is most important to the international patent community. Opportunities for national legislation and supranational and international treaties to improve the effectiveness of foreign licensing are frequently cited. However, the experts caution against international agreements that conflict with national goals. A number of countries have explicit control requirements that must be met—and provisions in licensing agreements are generally drafted to take account of these requirements. As we have noted in previous Institute reports, although great store is placed on harmonization and international instruments, domestic interests are deemed paramount.

## APPENDIX

THE PTC RESEARCH INSTITUTE OF THE GEORGE WASHINGTON UNIVERSITY

INTERNATIONAL EXPERTS QUESTIONNAIRE*

I—Current Practice

1. Please describe briefly what you consider to be the most burdensome types of problems encountered by patentees in securing industrial property rights abroad. Identify these problems by countries.
   [The last sentence was omitted in the questionnaire for governmental experts.]

2. Do you feel that present laws and practices of certain countries provide inadequate industrial property protection? Yes —— No ——. If Yes, please explain and identify countries where protection is inadequate.

3. If any part of international industrial property transactions in your country requires governmental approval, will you please describe.

4. What has been your experience regarding the abandonment of foreign applications because time has proven the lack of commercial value or because prior art was discovered during prosecution? (In some quarters it is assumed that applicants have insufficient knowledge to make an early decision. If this assumption is correct, what kind of international arrangement would be desirable to provide adequate time?)

5. What has been your general experience with reference to the provisions in foreign licensing agreements relating to the following:

[Does your government consider any one of the following provisions in foreign licensing agreements objectionable?]†
["Yes —— No ——. If yes, why?" was added to each of the following parts of question No. 5 in the governmental experts questionnaire.]†

   a. Discontinuance of rights to future use of know-how after termination of agreement
   b. Access to new developments (of licensee or licensor)
   c. Supervision and maintenance of quality standards
   d. Exclusivity as to manufacture, use and sale
   e. Terms of compensation (lump sum royalty, etc.)

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*This questionnaire was appropriately modified when sent to foreign experts engaged in governmental service. (Modifications, deletions, and substitutions in the questions for government experts are set forth in brackets immediately below the questions to which they refer.)

Two additional questions were included in the questionnaire when directed to Latin American experts. (The additional questions are identified by asterisk.)

† This question replaced question No. 5 in the questionnaire for governmental experts asked to respond to "a" through "g."

f. Who (licensee or licensor) maintains (bears expense) the industrial property, and who defends against infringement?
g. Provision for government requirements regarding royalties, remittances abroad, etc.

6. We would appreciate your providing brief comments on the weight (no specific figures or financial data are being sought) generally accorded the factors entering into decisions relative to the compensation foreign licensees should pay for use of industrial property rights (e.g., costs, competition, taxes).

[No. 6 was omitted in the governmental experts questionnaire.]

7. Have you noted any significant developments (or problems) within the last ten years relating to foreign taxation of industrial property transactions? Yes —— No ——. If Yes, please explain.

II—Effects of Existing and Proposed International Agreements

1. Should changes or amendments be made in the following arrangements to secure better international protection of industrial property?

   a. Madrid Agreement on the International Registration of Trademarks? Yes —— No ——. Explain.

   b. Hague Agreement on International Deposit of Industrial Designs? Yes —— No ——. Explain.

   c. Arrangement of Nice concerning the International Classification of Trademarks? Yes —— No ——. Explain.

   d. European Conventions (Council of Europe) relating to patent application formalities and international classification of patents? Yes —— No ——. Explain.

   e. Other international agreements in industrial property rights field. List.

2. List changes or amendments (if any) you think desirable to the Paris Union International Convention for the Protection of Industrial Property. Explain reasons for listing.

*3. List changes and amendments (if any) you believe desirable to the Inter-American Patent and Trademark Conventions of 1910 and 1929, respectively. Explain reasons.

3. Please review the international agreements listed below. If, and when, these become effective, in your opinion will industrial property protection be altered? (If you prefer modifications or alternatives to the proposals listed below, please include them in your discussion.)

   a. Patent Cooperation Treaty? Yes —— No ——. Discuss.

   b. World Intellectual Property Organization? Yes —— No ——. Discuss.

c. Scandinavian Patent Union? Yes —— No ——. Discuss.

d. African-Malagasy Industrial Property Office? Yes —— No ——. Discuss.

e. European Common Market Patent Convention? Yes —— No ——. Discuss.

*f. Central American Industrial Property Protection Agreement? Yes —— No ——. Discuss.

4. If, and when, the PCT comes into effect, do you estimate your foreign filings will increase? Yes —— No ——. If Yes, please give approximate percentage of increase for U.S. ————; all others ————.

5. Any additional observations you may wish to offer. ————

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* Additional questions directed to Latin American experts.

II

# Use of Industrial Property in Foreign Countries— A Further Report

ROBERT B. BANGS*

## Background

This is an expanded report on a mail survey of the licensing experience of U.S. companies employing industrial property in foreign countries and of foreign companies licensing in the U.S. An earlier report on this survey was given to the PTC Annual Public Conference in June 1969 and published in the proceedings of that Conference (*IDEA*, Volume 13, Conference Number 1969, pp. 84-89). Since that earlier report, additional replies have been received and space permits a fuller discussion of findings at this time.

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The survey centered on company experience in foreign licensing in relation to the prevailing government rules and administrative regulations that are involved; it also sought suggestions about particular actions governments might take to expand the trade in technology through more licensing or through increased direct investment. We asked for both the pinpointing of precise barriers to licensing in individual countries and for case histories detailing these difficulties and their results.

Full replies were received from 17 large American companies doing business abroad, and from eight large foreign companies doing business in the U. S. While this is not a large sample, it does account for a considerable volume of patent and other license royalties and for a wide variety of sophisticated experience in complex international licensing arrangements.

A total of 39 other large U. S. companies and nine other foreign companies answered this inquiry but had either only limited experience in licensing or felt that the problems they had encountered were not particularly germane or illustrative for purposes of this survey.

The questionnaire used, which is appended to this report, was a complex one requiring considerable time and checking of records to complete. We are grateful to those company officials who made this effort.

The questionnaire covered three general areas, as follows:

(1) Recent experience and current practice;
(2) Company policies and points of view;
(3) Effects of existing and proposed intergovernmental agreements.

In each area the questions were designed to uncover relevant company experience with international problems in obtaining, protecting, and licensing industrial property, and also to elicit informed opinion about steps that might improve the use of such property. Particular attention centered on pending intergovernmental agreements that might modify the existing status of industrial property under prevailing national laws.

## Recent Experience and Current Practice

The most noteworthy feature of the replies to the group of questions asked in this area was the diversity of company experience. Aside

from the costs and the delays encountered in obtaining and protecting foreign patents mentioned by a number of respondents, nearly every response cited a different problem as the most burdensome one the company had encountered. This is not surprising when one considers the different types of business represented and the various countries in which each company has operated.

Cited as unusually burdensome problems were (a) opposition by domestic companies in Sweden to any patent grants to foreigners, (b) enforcement problems in the U.K., (c) complex opposition procedures in a number of countries, (d) the boycott in Arab countries of any company dealing with Israel, (e) costs of translation (especially into Japanese), (f) the diversity of laws and practice in different countries, and (g) problems in getting royalty payments approved in countries with foreign exchange control. One can only conclude from this variety of response that problems do vary and that what appears a major difficulty to one company may be merely a minor annoyance to another.

On experience with infringers of their foreign patent rights, the responses also covered a broad range. Several companies reported no difficulties. Several others mentioned Italy as a country where infringement was common and remedies both difficult and inadequate. Trademark infringement was reported to be far more widespread than patent infringement and to be especially common in the Far East and in Latin America.

One case study of an unusually protracted and expensive litigation over patent infringement in France was reported in detail. In this case the American company lost in the end after winning all the intermediate steps.

Several respondents reported that the conclusion of licensing agreements with one party often forestalls infringement litigation with another. This may be because potential infringers respect a licensee's potential competition more than they do a legal right that may have as yet no actual market application. It may also be the potential infringer that is finally licensed.

Several companies noted that infringement was less common in Europe than in the U. S. Others mentioned that patents were well respected in Germany and Canada, as in the English-speaking industrial countries generally, but that difficulties were common in Eastern Europe and in the less developed countries as a group.

Asked for their opinion as to whether foreign laws for the protection of industrial property were adequate or not, respondents typically

stated that, in their opinion, they were reasonably adequate in most of the industrialized countries but not in the less developed ones. Trademark protection was usually considered far less adequate than patent protection. Compliance with local laws was often thought to be too expensive, thus limiting the protection sought to countries where an adequate return from licensing or otherwise working a patent was likely.

Several respondents cited nationalistic tendencies in local courts as a factor limiting actual protection to less than the statutes promised. On the other hand, one of the largest U. S. companies, with a most extensive program of licensing its patents abroad, spoke of the problems encountered as merely normal incidents of foreign commerce.

That the firms in this survey had extensive experience in foreign licensing is partially attested by their royalty income from this source. About 20 percent of those reporting had royalty income from abroad of $1 million or more each, and in some cases substantially more. Another 20 percent had royalty income averaging $400,000 per company. About one-third of the respondents gave no report on royalty income, although other information given indicates that this income in some cases was substantial.

On reasons for abandoning either foreign applications or foreign patents already granted, lack of commercial value was the principal reason, being mentioned by more than one-half of all respondents. In countries where patent maintenance fees prevail, abandonment sometimes occurs when a fee installment is due, because potential income from the patent makes its continuance appear uneconomic.

About one-third of our American respondents said they could use a period longer than one year before deciding whether to file foreign patent applications. Usually this longer period was desired because market-testing of the new product in the U.S. was not yet conclusive.

Seldom was a foreign application abandoned because of discovery of prior art after filing. Most companies reported their searches of prior art were good on a worldwide basis; their foreign applications were very rarely upset by prior foreign art previously unknown to them. This depends, of course, on the field of technology involved and on the relative positions of U. S. and foreign companies in development work.

In those cases where a period longer than a year before foreign filing was desired, this was not seen as a general necessity. In only a minority of cases, ranging from 10 percent to 30 percent, was the year deemed insufficient. In practically all cases, two years would be considered adequate, both for market-testing and for searching prior

art. The former activity is ordinarily much more time-consuming than the latter.

This desire for an extended time prior to filing, which might be accommodated by a preliminary application procedure in exceptional cases, does raise a conflict of public policy as between a government's desire for prompt disclosure of technology, a basic condition for granting patent rights, and the inventor's or assignee's desire to obtain a good idea of an invention's potential worth before going to the trouble and expense of protecting it.

On the general question of what foreign government approvals were required in licensing transactions, the replies indicated this varied among countries and also with the type of property being licensed. Very well known is the MITI review of all licensing contracts in Japan. Also well known is the requirement in virtually all countries still operating under exchange controls that all outpayments of foreign currency, including royalties or license fees, be reviewed and approved prior to payment. Less well known is the ministerial review in India of all licensing arrangements with foreign companies. This is designed both to conserve foreign exchange and to determine congruence with India's plans for economic development.

When asked whether industrial property considerations had been a determining factor in deciding whether or not to engage in joint ventures with foreign companies, the majority of companies, as in our earlier returns, said they had not. However, in virtually all cases where joint ventures had been formed, and some respondents had formed a dozen or more of these ventures, industrial property in the form of patents, knowhow, trademarks, supervisory training, and even marketing techniques had been among the most important contributions made by the American company to the joint venture. These joint ventures had typically been an intermediate step between licensing and direct investment in a wholly owned subsidiary abroad. With many countries discouraging foreign subsidiaries and desiring local participation in new ventures wherever possible as a matter of national economic policy, the joint venture may be the most convenient technique for obtaining depth penetration of certain markets.

The majority of respondents reported no unusual tax problems arising in connection with their transactions in industrial property. Some problems of customs formalities and unusual application of customs duties to imports of trademarked products were mentioned, as were some unusual applications of local tax statutes to foreign, i.e. American companies. These appear to be more in the nature of

isolated annoyances than planned policies of harassing foreign investors.

The proper remedy for these annoyances may be further elaboration of the network of treaties for the relief of double taxation; we already have an extensive body of these treaties, but they do not extend to many countries with whom American companies have extensive dealings. Moreover, they are difficult to keep up to date on a bilateral basis. Multilateral efforts at tax harmonization might be promising, but little progress in this field has yet been made.

In summary, the recent experience of American companies in licensing industrial property abroad and in using it as an important contribution to joint ventures with foreign partners is one of numerous procedural and other technical difficulties, which in themselves are not sufficient to prevent a rapid growth in transactions of this nature. International trade in technology is growing *pari passu* with the trade in commodities; negotiating for the continuous reduction of nontariff barriers must be an ongoing effort in both fields.

With controls over direct foreign investment by American companies likely to continue longer than many would desire, it is important that licensing transactions not be unduly hampered. So long as we improve our technology at a rapid rate, there is little reason to fear that in exporting it we are building future competition for ourselves in foreign markets. The companies that have been among the largest exporters of technology express little apprehension on this score.

Many of the problems experienced by American firms with regard to their foreign patents have also been experienced by foreign firms. This is to be expected in a third country where both the American and foreign firms operate as competitors; but in the U.S., foreign firms also cite delays and expense as factors limiting their willingness to take patents here and to license their technology to American companies.

The attitude of foreign companies toward infringement is much the same as that of their American counterparts. Generally they prefer to take informal action against infringers whenever possible and to avoid suits save in extreme cases. Oftentimes licensing an infringer is the best settlement. Foreign companies have experienced much the same difficulties in dealing with infringers in Italy and France that American firms have. They have likewise found trademarks more difficult to protect than patents.

Foreign companies were generally reluctant to report their income from foreign licensing, but other information indicated this income

was substantial. Royalties to foreign companies are liable to withholding tax in the U. S., with the final tax status being dependent on the foreign company's business status in the U.S., and on whether or not a tax treaty governs.

On the question whether the one-year period before filing foreign patent applications was sufficient, the foreign companies, like the American, found this period inadequate only in a minority of cases. One foreign company reported that full market-testing of its products took from three to six years; others reported generally shorter periods. A few companies strongly opposed any increase in the one-year period on the ground this would benefit their competitors more than themselves.

The general flavor of these responses from non-American companies make it clear that large multinational companies have many of the same problems regardless of the country in which they are based. They also share much the same philosophy with regard to licensing, participation in joint ventures, et cetera, as their counterparts in other countries. There is perhaps more interest among European companies in supranational patent systems and in patent harmonization arrangements than is to be found among American companies; reasons for this difference are not apparent from this survey.

## Company Policies and Points of View

This section of the questionnaire sought specific information on company strategies for using their industrial property abroad, generally in furtherance of sales or other company objectives. As might be expected, the replies covered a broad range, revealing significant differences in marketing tactics and in the factors determining the location of manufacturing facilities. As with the initial group of questions, replies were received from both American companies operating abroad and foreign companies operating in the U. S. Once again it was clear that a company's attitudes and general procedures depended more on the nature of the business in which it was engaged than on the nationality of the company, e.g. all multinational chemical companies have a broad similarity of viewpoint with regard to patents and trademarks.

As to whether industrial property considerations *materially* affected marketing strategy abroad, particularly with regard to using authorized dealers versus the company's own sales outlets, the replies split

about two to one that industrial property was *not* normally a material factor, although it did have some bearing in nearly all cases. The type of outlet through which sales would be sought depended more on overall company sales policy and on the nature of the product than on patent or trademark considerations. Clearly the more sophisticated the products being marketed and the greater the necessity for specialized servicing requirements, the more likely a company is to rely on its own outlets and the less likely it is to depend on dealers who are foreign nationals and who may have other business interests as well.

In those cases where industrial property was material in forming sales strategy, it was chiefly a desire to avoid trademark dilution that tipped the balance in favor of a company's own sales outlets. As establishing its own outlets is clearly a much more expensive sales strategy, involving investment in both facilities and inventory, the responses plainly indicate that companies go this route only when they perceive some substantial advantages, such as greater market penetration, better servicing, or a need for strict quality control. Several interesting cases were found in which companies were willing or even anxious to manufacture abroad but were unwilling to entrust their sales efforts primarily to foreign nationals. This is actually less surprising than it may seem at first blush, since manufacturing operations through wholly owned subsidiaries can be closely controlled. This situation is to be found, naturally, only in well developed industrial countries, primarily in Europe.

In response to a question about the circumstances in which a company would rely on trade secrets rather than patents in conducting its foreign operations, the replies split about evenly between no reliance on trade secrets and rather extensive reliance on unpatented technology in negotiating licensing agreements. Obviously this choice depends heavily on the products and the technology involved and on the scope of the typical licensing agreement. When a comprehensive license is customary (i.e. a license transferring patents, trademarks, know-how, and other technical information), some trade secret material will usually be conveyed; normally this material will be of a type to make a patented process or product more valuable commercially.

Several companies mentioned that it was regular policy to make only minimum necessary disclosures in filing for foreign patents in order to withhold valuable know-how for licensing negotiations. In these cases the patent owner evidently regarded licensing as the principal potential strategy for working the patent in a given foreign country.

That comprehensive licensing agreements are common is seen in the fact that more than 75 percent of our respondents indicated that some or all of their agreements take this form. Generally the less technically experienced the licensee, or the less industrially developed the country in which he is located, the broader will be the scope of the license, including worker and supervisor training as well as know-how in addition to the patented material.

Even those companies that did not regularly employ comprehensive licenses did so occasionally to protect trademarks or to insure quality control over the licensee's output. Only one response indicated that comprehensive licensing was never employed, for unspecified reasons.

It is clear from these responses that foreign licensing is commonly regarded as a kind of educative process, in which the licensor is concerned to teach its licensee to employ the patented process to best advantage. If the learning process is successful, the next step is often a joint venture, to which the licensor may contribute some capital in addition to the industrial property that is transferred by the license agreement.

Doing business abroad is often a continuum in which the extremes extend from export sales alone to direct investment in a wholly owned manufacturing and distributing subsidiary. Numerous intermediate positions are also possible—from limited licensing to more extensive licensing to joint ventures. Some companies will pass through all these stages in developing a particular foreign market; others may skip one or more stages or begin in the middle or even at the direct investment extreme of the continuum. The conservative course for many companies is to progress through the stages as market development warrants.

On the general question of how company decisions are made concerning the particular countries in which industrial property protection will be sought and maintained, the replies reflected a fair degree of unanimity. Usually these decisions are based on what may be called cost-benefit surveys. These surveys are normally conducted by some intracompany committee which may be either formal or ad hoc. As a result of these estimates, broader registration of trademarks abroad than filings for foreign patents is normally sought. Most companies will seek a foreign patent only if there is a reasonable expectation of working it in some manner, e.g. by licensing.

Only very rarely will interference or opposition proceedings be used in connection with foreign patent applications; purely defensive filing is also less common abroad than at home; but potential competition is usually a factor that is weighed in deciding where foreign protection

of industrial property is to be sought or maintained. Repeatedly the replies stressed that protecting industrial property abroad is an expensive process which must be balanced by reasonable expectation of compensatory earnings.

In the committee decisions about foreign property protection, input is usually sought from the foreign licensees and foreign subsidiaries, but the decisions themselves are typically home office or headquarters decisions. In these decisions patent counsel is almost invariably represented, with his role varying from secretaryship to chairmanship of the decision-making committee. Even in companies where management by committee is not common, the committee system will normally be employed for this special problem. Foreign companies do this quite as much as American companies, even though group management may be even less their style than it is that of their American counterparts.

On the general question of additional measures the U. S. Government might take to strengthen the protection of U. S. industrial property abroad few practical suggestions were received. Those that did seem most feasible related primarily to harmonization of procedures and formalities among national patent offices. Some respondents thought the proposed Patent Cooperation Treaty offered the best vehicle for this effort; others would rely primarily on bilateral agreements of essentially an administrative nature.

The responses made clear that there is no broad dissatisfaction by U.S. business with existing federal policies toward the use and protection of industrial property abroad, and no significant demand for new federal initiatives in this area.

Interestingly, foreign companies were generally more critical of patent and trademark protection in the U.S. than the U.S. companies were of available protection abroad. The burden of this criticism was that the U.S. has been slow to harmonize its patent procedures with those of other countries. Terms of this harmonization are of course the critical issue. Generally, foreign firms give much greater support to the proposed PCT than do American companies.

In summary, the noteworthy feature of all these responses concerning company attitudes and policies is the great similarity of view between American and foreign companies concerning protecting and licensing industrial property abroad. Use of broad, comprehensive licensing agreements was at least as common among foreign companies as among American, if not more so. Similar calculations and procedures are used by all multinational companies in deciding where to seek and

to defend both trademark and patent rights. The most noticeable difference in viewpoint concerns PCT, with foreign companies being much more favorably disposed than American companies.

### Effects of Existing and Proposed Agreements

This third group of questions put both to American and foreign companies, with substantial patent and trademark assets and extensive experience in licensing these assets abroad, dealt with attitudes toward existing and proposed international agreements. What we sought to obtain was not simply opinion concerning these agreements, but operating experience under existing agreements and changes in practice that would be required or desirable under proposed agreements as well. The replies generally covered all these aspects of the subject.

On the existing Madrid Agreement for international registration of trademarks, about 60 percent of the replies from American companies did not favor adherence to this agreement in its present form. About 30 percent favored the U.S. joining, while 10 percent had no firm view pro or con. A number of respondents felt the burdens under this agreement would outweigh the advantages to them. Foreign companies, in contrast, generally favored the Madrid Agreement, both for their own countries and for the U.S. Several responses mentioned that the value of the Madrid Agreement would be substantially enhanced if the U.S. were to become a party. The question these responses pose is whether a quiet initiative from the U.S., to explore the possibility of some modification of the Madrid Agreement in exchange for U.S. adherence to it, might be a useful move or not. This is a specialized question that should properly be explored by others.

On the Hague Agreement for international deposit of industrial designs, the preponderant opinion from American companies was against U.S. adherence. In contrast, the foreign companies almost unanimously favored this agreement both for themselves and for their U.S. counterparts. While foreign companies are naturally a bit diffident about making suggestions concerning U.S. Government policy, they did manage to convey a view that the U.S. was, in their opinion, somewhat backward with regard to international cooperation in the industrial property field. Most of the foreign respondents to this survey are headquartered in countries that adhere both to the Madrid and Hague Agreements.

In contrast to the rather negative views toward the Madrid and Hague Agreements, U.S. companies generally looked with favor on the

Nice Arrangement for uniform international trademark classification and on the Council of Europe conventions for uniform patent classification and for greater uniformity in patent application formalities. In all these agreements the advantages of international uniformity are more readily apparent and the substantive issues have less economic significance than in the Madrid or Hague Agreement. As before, the foreign companies generally looked with favor on both these agreements.

With respect to those international agreements that are contemplated but not yet in force, our aim was primarily to discover whether significant changes in company procedures or operating policies would be necessary or desirable if these agreements came into effect. Concerning the proposed World Intellectual Property Organization, opinion was virtually unanimous, both among the American and the foreign companies, that few if any operating changes would be required. Several respondents remarked that WIPO was merely an updating of BIRPI and that its functions would be largely supervisory over other industrial property organizations and thus unlikely to affect individual company activities.

Similarly, concerning the proposed Scandinavian Patent Union, opinion was virtually unanimous that no significant changes in operating procedures or policies would be required. Several respondents noted that this Union should make it easier for them to obtain protection in Scandinavian countries and therefore they favored it.

As already noted, foreign companies are generally much more favorable to the proposed Patent Cooperation Treaty than are American companies. Curiously, however, neither group of companies anticipates any great impact on its international activities if the Treaty comes into effect. A good deal of uncertainty was expressed by both foreign and American companies as to how several different examining authorities, as proposed under PCT, would actually operate and whether they would actually achieve uniformity in practice. American companies were perhaps a bit more skeptical on this score than were the foreign companies.

In general, it appeared from the responses that PCT is still regarded by most large companies as too remote a contingency for them to think seriously about operating details under this Treaty. This is perhaps realistic since the draft of the Treaty will doubtless undergo significant changes before it is finally approved. Most companies are taking a wait-and-see stance and are, as yet, doing little forward planning concerning PCT.

On balance this survey of opinion and operating practice with regard to existing and proposed international agreements in the industrial property field showed that multinational companies look with some favor but also some skepticism on these international agreements. The American companies are the more skeptical, perhaps because they have relatively less operating experience under international agreements than do the European companies.

## Special Problems Mentioned in Case Histories

The request for case histories that accompanied this questionnaire provided an opportunity for companies to outline, in as much detail as they wished, any unusual or special problems they might have encountered in protecting or licensing their industrial property abroad. The response to this invitation was not wholly satisfactory, but a few special problems did come to the surface.

One respondent, an oil company, spoke of licensing a noncritical product behind the Iron Curtain. Their complaint was that, although the U.S. State Department cleared this transaction as in accord with U.S. policy, it was unwilling to back up this clearance with public support if any press or other media criticism of the transaction should arise. The complaint appears to have some justification in that public policy should indeed be public rather than private.

A special problem mentioned by several respondents can arise in those countries where patents must be worked to retain their validity. Italy has such requirements in its patent law. An actual case may make the nature of this problem clear.

An American company patented an invention in both France and Italy. It granted an exclusive license to its French patents to a French company and also an option to this same French company to use its Italian patents exclusively. Subsequently, an Italian firm infringed the Italian patents. The optimum settlement of this infringement would have been to license the Italian company, which, under the working requirements of Italian law, could insist on a nonexclusive license. The problem, in this case, arose from the exclusive character of the agreement between the American company and its French licensee.

The solution proposed by the licensor was that the U.S. should extend to Italy its bilateral agreements exempting patents from working requirements. Such agreements are now in effect with Germany, Greece, and Switzerland. Since some countries have known work-

ing requirements in their patent laws, and in general these requirements are in the public interest, agreements are likely to conflict with these national statutes.

Several respondents mentioned problems that had arisen in license negotiations with firms in less developed countries. In such countries, where the market for a particular product is small, the country may offer a monopoly position for a limited time to the licensing company. The Agency for International Development, which offers insurance against investment risks in less developed countries, is generally unwilling to insure an investment based on a monopoly position in the technology-importing country. The issue is clearly one of general industrialization policy and of U.S. foreign economic assistance rather than one of industrial property per se.

In conclusion, the material obtained in this survey indicates there are few major obstacles to licensing technology abroad that derive from government policy. While foreign licensing agreements are undoubtedly difficult to negotiate and can occasionally lead to some unexpected problems, there are few overt barriers. Both American and foreign companies that license abroad extensively have broadly similar attitudes and policies toward these licensing agreements. The foreign companies generally look with more favor on international agreements, both existing and proposed, that govern industrial property matters. This is especially apparent in attitudes concerning the proposed Patent Cooperation Treaty.

## APPENDIX

### THE PTC RESEARCH INSTITUTE OF THE GEORGE WASHINGTON UNIVERSITY QUESTIONNAIRE

#### I—Recent Experience and Current Practice

1. Please describe briefly the most burdensome types of problems you encounter in securing industrial property rights abroad. Identify these problems by countries or on a regional basis: Western Europe, Eastern Europe, Middle East, Far East, Africa, Latin America.
2. Please describe your experiences with respect to infringement of your industrial rights in other countries. As in the previous question, please identify countries or regions. It would be most helpful if you could advise us how quickly a decision could be obtained enforcing the patent against an infringer.

3. Do you feel that laws and practices of other countries provide adequate industrial property protection? Yes —— No ——. If No, please explain and identify countries where protection is inadequate.

4. What range of annual income derived from the company's international transactions is attributed to industrial property?

| | Estimated Dollar Value |
|---|---|
| (1) Licensing of Patents | |
| (2) Licensing Unpublished Technology Know-how and Trade Secrets | |
| (3) Licensing of Items in (1) and (2) above. (To be used where company records do not provide separate breakdowns for (1) and (2)) | |
| (4) Sale of Patents | |
| (5) Sale of Unpublished Technology | |
| (6) Licensing of Trademarks | |
| (7) Sale of Trademarks | |
| (8) Licensing of Industrial Designs | |
| (9) Sale of Industrial Designs | |

5. What has been your experience, abandoning foreign applications because time has proven the lack of commercial value or because prior art was discovered during prosecution? (In some quarters it is assumed that applicants have insufficient knowledge to make a decision to file abroad within the present 12 month priority period.)

6. In how many cases noted under 5. above was information regarding commercial value, or prior art, available within 20-25 months of the filing date of the first application?

7. If any part of your international industrial property transactions requires approval by a foreign government, will you describe?

8. Has industrial property played a role in your decision to enter into joint ventures with foreign companies within the last ten years? Yes —— No ——. If Yes, please explain, including the number of foreign companies involved and the countries in which they are located.

9. Have you experienced any unusual problems within the last ten years relating to U.S. or foreign taxation of industrial property transactions? Yes —— No ——. If Yes, please explain.

## II—Company Policies and Points of View

1. Do industrial property considerations materially affect policy regarding appointing authorized dealers vs. creating own sales outlets abroad? Explain briefly.

2. In what circumstances, if any, would greater reliance be placed by your firm on trade secrets, rather than on patents, in conducting sales, licensing or other business abroad?

3. Do foreign licensing arrangements link know-how, supervision and training of local personnel, etc., together with patents, trademarks, etc.? Yes —— No ——. If Yes, please elaborate.

4. How do companies with a sizable international program of protection of industrial property make decisions on the breadth of filing to protect a specific invention or trademark? On maintenance or abandonment of patents? On whether or not a competitor's application is to be opposed and where?

5. What role, if any, do subsidiaries or licensees take in the decisions necessary in question 4?

6. What additional measures, if any, might the U.S. government undertake to protect U.S. industrial property rights abroad?

## III—Effects of Existing and Proposed Agreements

1. In your view, what action should the U.S. government take with respect to the following arrangements to help American firms secure better industrial property protection abroad:

   (a) Adhere to the Madrid Agreement on the International Registration of Trademarks? Yes —— No —— Explain

   (b) Adhere to the Hague Agreement on International Deposit of Industrial Designs? Yes —— No —— Explain

   (c) Adhere to the Nice International Classification of Trademarks Arrangement? Yes —— No —— Explain

   (d) Adhere to European conventions (Council of Europe) relating to patent application formalities and international classifications of patents? Yes —— No —— Explain

   (e) Adhere to any other international agreements in industrial property rights field to which the U.S. is not a party? List

2. Please review the pending or planned international agreements listed below. If, and when, these come into effect, will your overseas operations with respect to industrial property protection be altered?

   (a) (i) World Intellectual Property Organization? Yes —— No —— Explain
   (ii) Scandinavian Patent Union? Yes —— No —— Explain

   (b) (i) Patent Cooperation Treaty? Yes —— No —— Explain. (Several firms have made computations relating to anticipated volume of foreign filings and costs. While precise estimates are not possible, any figures you can supply conveniently will be welcome.)
   (ii) Patent Cooperation Treaty contemplates several approved examination authorities—i.e. U.S., U.K., U.S.S.R., Germany, Japan, Netherlands. If you have views with respect to the speed and quality of examination now provided by such authorities, will you please give us the benefit of this experience.

# III

# Commentary

JOHN C. GREEN*

THE TWO PRECEDING PAPERS CONVEY "distillations" of the knowledge, views and experience of U.S. and foreign specialists in international industrial property transactions. Dr. Harris' and Dr. Finn's paper is based upon a "blue ribbon" sample drawn largely from experts in foreign companies, foreign governments and U.S. firms specializing in international industrial property law. Dr. Bangs' work reflects information supplied by a number of U.S. companies with extensive international experience. Each complements the other; looked at together they can help us identify those features of existing or proposed international agreements deemed reasonable and constructive by many authorities at home and abroad. Equally important, where such eminent experts differ in analyzing specific features of such agreements we can assume that these areas are of more limited value or may present serious problems.

A national system for the protection of industrial property does not exist apart from the country in which it is located and the economy it serves. On the contrary, each nation's system is embedded in and

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shaped by the history, the geography, the degree of industrialization, the legal system, and the type of government in which it has evolved. There is no more reason to expect identity in the U.S., Japanese and Nigerian systems than there is to expect identity of appearance and behavior in their respective nationals. If this is accepted—the differences in procedures and practices between even neighboring nations like France and Germany become more understandable. More important is appreciation of the fact that we cannot pluck each of these industrial property systems out of its economic and political environment and quickly reshape it into one standard system which will be generally acceptable.

Nevertheless, representatives from the public and private sectors here and elsewhere display a continuing interest in international industrial property agreements. The public official sees them as useful devices for stimulating international trade, advancing economic development and contributing to a favorable balance of payments position. He wants to be sure that adherence to such agreements is consistent with these general objectives. The representative from the private sector recognizes that all of these general objectives are desirable, but he has more immediate and pressing considerations. If we were to summarize the points of interest to U.S. experts representing private industry, we could say that they are favorably inclined if the agreement in question will contribute to the following:

(1) It will reduce costs of obtaining, maintaining and protecting industrial property rights;
(2) It will reduce formal and other requirements in obtaining protection;
(3) It will lead to increased quality and validity of patents issued here and abroad.

Now let us consider several such agreements within this perspective.

## International Registration of Trademarks (The Madrid Agreement)

There is a division of opinion between U.S. and foreign experts with respect to this Agreement. The U.S. is not a party to the Agreement, and over 50 percent ot the U.S. respondents did not favor adherence "in its present form." In contrast, experts from countries which accept and use it indicate satisfaction, although they recognize that improvements are desirable. Certainly the Agreement has facili-

tated the registration of trademarks. Unfortunately, success in achieving this objective overloaded the Register with trademarks which are not in use in a number of the member countries. One step to correct this situation has been taken—this is the "territorial limitation" which limits basic registration to three member countries and requires extra fees for additional registrations. It should be noted that a meeting will be held in Geneva on April 13-17 to consider the advisability of modifying the Madrid Agreement. The United States has been invited to send a delegation of experts to that meeting.

### International Deposit of Industrial Designs (The Hague Agreement)

Here the situation with respect to the Madrid Agreement is repeated with a stronger vote by U.S. experts against adherence. Most foreign specialists favored the agreement, although it is interesting to note that to date it has not been accepted in the Netherlands despite the fact that it was concluded in the capital of that country 45 years ago. It seems that the principal objection that the Netherlands government maintains is to the lack of publication of the designs, which means that consultations must be carried out in the BIRPI office in Geneva. In 1960 an agreement was drafted at a conference in The Hague which would require BIRPI to publish the designs filed there. If this should be ratified and accomplished, perhaps experts in our country and in the Netherlands may be more favorably disposed than currently.

### The Paris Union International Convention for the Protection of Industrial Property

Here is another example of successful acceptance creating problems. As more and more nations become members and adhere to the requirements of this convention it grows more difficult to keep it abreast of changing needs. For example, today most highly industrialized countries would welcome an increase in the convention priority period from the present 12 months to 18 or 24 months. However, the requirement that amendments must have unanimous acceptance makes introduction of such an improvement extremely difficult. Probably the major interest in this country in the proposed Patent Cooperation Treaty, to be discussed later, resides in a belief that it provides

the mechanism for securing an increase in priority period which logically should be sought through amendment of the Convention.

### The Scandinavian Patent Union

This experiment in international cooperation is looked at favorably by most respondents. Some point out, however, that the main requisite for its success resides in basic similarities between the participating countries, including the search for novelty and the allied procedures for obtaining patent protection. The Nordic countries cooperate politically, economically and socially. Such conditions favor international cooperation in patents, and it may well be that this is a basic requirement for any significant agreements with respect to industrial property.

### The African-Malagasy Industrial Property Office

Here is an endeavor which, laudable in purpose, does not produce a reaction similar to that obtained with respect to the Scandinavian Patent Union. There are a number of reasons why this may be so: (a) the limited life of the operation does not permit an informed evaluation; (b) the lack of adequate trained staff in relation to the size and complexity of the task generates skepticism, and (c) the economic development of the member countries does not lead to substantial commercial transfers of technology, and hence there is little interest and experience. At any rate, most experts, here and abroad, are not optimistic concerning the success or value of this effort in the reasonably near future.

### The Patent Cooperation Treaty

At this point the Treaty has undergone substantial modifications from earlier versions. From the point of view of U.S. experts, these have been generally good. Many foreign specialists would differ. In particular, the famous "first to file" provision was favored abroad and strongly opposed here. Now that it has been put aside U.S. opposition has decreased, although skepticism continues in some quarters. Earlier reference to the need for an extension in time for filing abroad from 12 to 18 or 24 months is pertinent here. This feature of the proposed

treaty (20 months) is its most powerful attraction to U.S. experts.

Much discussion has taken place with respect to the concept of five designated searching offices. This may have some value but most of the experts involved in the Institute's studies were not impressed.

At this point in time attention is concentrated on the use of such searching offices for exchange of search reports. This should be useful; however, it is clear that examiners in each searching office will continue to make their own searches and decisions upon patentability; thus little manpower or time will be saved.

Little statistical information was obtained on whether foreign firms would file more freely in the United States under the provisions of the Patent Cooperation Treaty than currently. No reason is known for the reluctance of the overseas experts to provide estimates of the volume of future filings. It should be recalled, however, that foreign inventors questioned earlier saw the United States as a major market opportunity and procurement of U.S. patents as a necessary economic device to facilitate access. Also, it is interesting to look at comments of the Science Policy group in the Organization for Economic Cooperation and Development. In recommending policies to the member countries to strengthen their performance in innovation, the OECD observed,

> . . . the sector studies have shown that the market in product areas with a high rate of technological innovation is essentially a *world* market, exploited by international firms. They have also shown that by far the largest market for such products is in the United States, and that—where countries other than the United States have been successful in original innovation—they have generally penetrated the United States market. Although efforts will be necessary to widen both national and regional markets, it is unlikely that countries can be successful in original innovation unless they succeed in penetrating the United States market. And, in fact, moving areas of technology where close and frequent contact is required between producer and customer, penetration of the United States market will often require production activities—and even R&D activities—in the United States, in addition to sales activities. The implantation of production activities in the United States will also facilitate penetration of the large government market for technologically sophisticated products.

Acceptance of the OECD recommendation is reflected in the substantial volume of U.S. patent applications generated abroad. At present this figure is estimated as 25 percent of total filings. It seems reasonable to assume that companies and inventors in other countries will be encouraged to file here if it becomes simpler and cheaper for them to do so.

The question of costs of obtaining adequate protection abroad

under PCT seems to have no uniformly acceptable answer. There are those who claim the additional procedures contemplated in PCT will raise costs. There are those who feel some of those same procedures will make it cheaper and easier than currently. And there are those who say, with respect to individual cases, it may be more expensive, but collectively there will be savings because as a result of the time extension to 20 months they won't file as many inventions in as many places. The argument in support of this last position is that the additional time available will permit a better determination of the commercial potential of the invention and hence will avoid filing on some cases which are determined later to be of minor significance.

Perhaps the question of expenses could be put into perspective if we review a paper titled "Foreign Patent Applications and Patents," by a Swiss patent attorney named Thomas Ritscher and found in the Spring 1969 issue of *IDEA*. Mr. Ritscher points out that the number of patent applications filed annually in a given country constitutes "the relative patent importance of that country." Employing these numbers as guidelines he finds that patent costs would be in the range of $9,000-$20,000 if restricted to countries where at least 10,000 patent applications are filed each year. Even if one sought coverage in countries accounting for 1,000 applications or more annually, the costs would be between $28,000 and $56,000. These figures do not appear unreasonably high, especially when considered in relation to the much larger research and development costs which generated the invention which is to be protected.

This Commentary, and the two reports which precede it, are elements of the Institute's continuing study of the protection of industrial property abroad. This topic is of interest to the U.S. government as it seeks measures to promote international trade and to gain a favorable "balance of payments" position. Equally concerned are U.S. firms seeking to establish, or strengthen, business relationships in other countries. Accordingly, the Institute will continue its research in this area to provide useful information to both government and industry policy makers.

# Patent Policy Pertinent to Multinational Cooperative Research*

## CHAPTER I

### INTRODUCTION

THE PTC RESEARCH INSTITUTE of The George Washington University submits this report on its investigation and proposals for designing a suitable patent policy for OAS-sponsored research. The report was prepared in response to the OAS request to the Institute for cooperative assistance in developing such a policy within the framework of projects to be financed by the OAS Regional Scientific and Technological Development Program. The Institute's project team consisted of selected specialists in legal and economic aspects of research and development patent procedures. While in draft stage, the report was also reviewed for consideration and comment by several leading U.S. attorneys active in the international patent field.

* This report, undertaken for and financed by OAS, was prepared by an Institute research team consisting of John C. Green, L. James Harris, Joseph M. Lightman and Ronald R. Snider. The views presented in the report do not necessarily reflect those of any other organizations or governmental agencies with which the members of the team may be associated.

*Investigational Procedures*

The report sets forth results of investigations conducted by Institute staff members into activities of other international organizations regarding technical research and development patent policies. The practices of selected countries with positive patent policies relative to government-sponsored research have also been analyzed. The U.S. situation has been covered in more detail since the magnitude of U.S. government and industry research and development is far greater than that of other countries. Other countries whose policies have been examined are the U.K., France, Germany, Belgium, Norway, Sweden and Japan. Operations of private research institutes and organizations which support or exploit cooperative research in the U.S. and abroad have also been studied.

In the course of their investigation, Institute staff members held interviews with experts in the Washington, New York City and Boston areas, including those associated with international, as well as with domestic research institutes. Extensive research was also conducted into published literature relating to patent activities of national and international government organizations; private and public research institutes; and other organizations which support or exploit cooperative research domestically and internationally. Data acquired from previous empirical research conducted by the Institute on government patent policies were also re-examined by staff members. Although these data served as the basis for earlier reports by the Institute on U.S. government patent policy, they proved highly useful to staff members in preparation of this report.

*Terms of Reference*

The scope of activities which the Institute was asked to undertake was:

(1) Collection of information on existing patent policies with relevance to OAS-oriented programs;
(2) Examination of each policy to select features which would facilitate implementation of OAS program objectives; and
(3) Preparation of a report which
    (a) discusses experience of and philosophy behind comparable patent policies, and
    (b) identifies various alternatives, including advantages and disadvantages of each, for consideration by the OAS.

Within this framework, the Institute directed its inquiries into three broad areas of technical research and development (hereinafter R&D), namely, that economically motivated (commercial, industrial, agriculture), that related to welfare and social programs (health, hygiene, medical research, etc.) and that oriented to defense and atomic energy. From the *Frascati Manual*, developed by the Organization for Economic Cooperation and Development (OECD), in 1964, to standardize statistical procedures, the following R&D definitions were maintained by Institute staff investigators:

> "Basic research": work undertaken to advance scientific knowledge; no practical application immediately apparent;
>
> "Applied research": same as above but with practical application;
>
> "Development": use of basic and applied research results directed to introduction of useful materials, devices, products, systems, and processes, or improvement of existing ones.

*Organizational Framework of Report*

Practices and policies of intergovernmental organizations are analyzed in Chapter II. Organizations included are those with diversified activities, such as OECD, those with regional interests, such as the European Economic Community and its related agencies, and those with specialized activities, such as the World Health Organization. Chapter III deals with policies of selected Western European countries and Japan and Chapter IV with the U.S. Chapter V discusses research conducted by private independent institutes, cooperative associations and universities. Discussion of the Institute's findings, and proposals based thereon, for OAS consideration are in the final Chapter VI.

The Institute has endeavored to prepare the most comprehensive report feasible within the time period prescribed for its completion. The growing magnitude of expenditures for R&D and numbers of organizations engaged in such activities, nationally and internationally, have necessitated careful selection by the Institute's researchers of those on-going programs appearing most pertinent to OAS interests. Latest available statistics indicate that, in 1965, total world expenditure for R&D was estimated at 60 billion dollars, of which the U.S. and Soviet Union accounted for about one-third each. Highly indus-

trialized countries devote about 1 to 3 percent of their gross national product, or their national income, to R&D; 30 to 65 percent of total R&D expenditures per country are borne by the government and the rest by private industry.[1] The exact number of intergovernmental organizations engaged in some form of scientifically oriented research has been difficult to determine. The best available figures show that between 1945 and 1955, 58 new international governmental and nongovernmental organizations engaging in such research were created. In 1963, there were over 50 such governmental and 250 nongovernmental organizations.[2]

Basic research accounts for a relatively small percentage of government and industry outlays for R&D. Outlays for applied research are relatively higher; those for development usually constitute the greater percentage of total outlays.[3]

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[1] *Industrial Property,* (March 1967), published by United International Bureaux for Protection of Intellectual Property (BIRPI), Geneva, Switzerland, p. 64.

[2] *International Scientific Organizations,* published by OECD, (Paris: 1965), p. 20.

[3] Following statistics for the U. S. are illustrative: Since 1967, the U. S. Government has spent about 13% of its annual R&D outlays on basic research, 20% on applied research and 67% on development. Industry annual outlays are about 9% for basic research, 45% for applied research and 46% for development. (Source: National Science Foundation, *Federal Funds for Research, Development and Other Scientific Activities, Fiscal Years 1967, 1968 and 1969* (NSF 68-27), Vol. XVII (August 1968); Papers and Proceedings of 81st Annual Meeting of the American Economic Association (December 29, 1968), published in *American Economic Review,* (May 1969), Vol. LIX, No. 2, p. 66.

# CHAPTER II

## Intergovernmental Cooperation and Patent Policies in Research and Development

Since the end of World War II, international cooperation in R&D has steadily grown, not only because of heavy costs of research in various fields, often beyond the means of one country, but also because it is apparent that problems common to several countries can be handled and solved more thoroughly, if divided between research facilities in interested countries. As previously noted, many intergovernmental organizations—global and regional in scope—are involved in cooperative R&D. These organizations may be concerned either with stimulating international contact and action over broad fields of research, or with conduct of programs in specialized fields. Their activities may take such forms as coordination of projects or services, encouraging better scientific education, dissemination of technical literature, organization of international meetings, subsidization of R&D work by national and international bodies, and technical assistance programs for developing countries.

Regional organizations engaging in scientific R&D activities are not, of course, peculiar to Europe, since they exist within the framework of Inter-American and Asian arrangements. Nevertheless, it is in Europe that most such organizations exist.

Institute researchers found that with the exception of the European Atomic Energy Community (EURATOM), no international or regional organizations engaged in R&D activities had on-going programs for acquiring patents. It was apparent that the results of any R&D sponsored by such organizations were generally published, or otherwise placed in the public domain, or were left, with respect to acquisition of patent rights, to national policy determinations of participating countries.

Here, it should be noted that with the exception of the African and Malagasy Office for the Protection of Industrial Property (OAMPI), there does not exist any international agreement whereby a patent granted by one source is automatically valid in another. A draft European Patent Convention was published in 1962; but no agreement has yet been reached on its final adoption. Recently, the European Common Market countries, in conjunction with other Western European countries, initiated action to develop a broader European patent system. The Nordic countries (Norway, Sweden,

Denmark and Finland) are cooperating to harmonize their laws and regulations so as to simplify multiple filing and registration procedures. Through the facilities of the United International Bureaux for the Protection of Intellectual Property (BIRPI), in Geneva, a draft Patent Cooperation Treaty has been finalized for formal negotiation in 1970 to reduce multiple filing and search procedures for applicants seeking patent rights in more than one country.

What sometimes is referred to as the "international patent system" is the "Paris Union" International Convention for the Protection of Industrial Property, adhered to by about 80 countries. The two basic principles of this Convention are "national treatment," and "special advantages" to citizens of member countries in industrial property rights protection.[4] The Inter-American Convention for the Protection of Inventions, Patents, Designs and Industrial Models, signed in 1910, also encompasses these basic principles. It is adhered to by the U.S. and 13 other Western Hemisphere countries. While these Conventions provide for certain uniform national procedures, as well as extension of benefits by each member country to nationals of the others, it is still necessary for an inventor to file an application in each member country where he seeks patent protection. Governmental and nongovernmental organizations therefore, that may have acquired international patent portfolios have done so through separate filings by their representatives in each country where patent rights were acquired. A check of the U.S. Patent Office Assignment Records reveals that Euratom now owns about 70 U.S. patents. One other international organization, the Pan American Union, owned a current U.S. patent, which it later assigned to IBEC Housing Corporation, New York City.[5] It could be surmised that this lack of ownership of U.S. patents by intergovernmental organizations, other than in the atomic energy field, may also be characteristic of the situation elsewhere.

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[4] Adopted in 1883, latest Revision in effect adopted at Lisbon in 1958. Under the national treatment principle, each member country treats nationals of the other in the same manner as its own citizens under its patent and trademark laws. The special benefits include "right of priority" wherein a national of a member country has one year after first filing his patent application in a member country in which to file a corresponding application in another member country and back-date the latter to the filing date of his first filed application; also, nationals of member countries have protection against arbitrary forfeiture of their patents, if not immediately worked.

U. S., Canada, all Western and Eastern European (except Albania) countries and many in Asia, Far East and Africa are members, as are eight Latin American countries (Argentina, Uruguay, Mexico, Brazil, Haiti, Dominican Republic, Trinidad and Tobago, and Cuba).

[5] U. S. Patent No. 2,962,788 "Brick Making Apparatus," Dec. 6, 1960; assigned

A list of international governmental and nongovernmental organizations engaged in some type of R&D oriented activity is attached as Appendix A. It is not necessarily complete, although based on the latest published information available. Organizations whose activities were evaluated by the Institute were those having substantially active programs for promoting or directly sponsoring R&D. A description and analysis of their activities pertinent to the OAS terms of reference follows.

### *Intergovernmental Diversified Activities*

#### *Organization for Economic Cooperation and Development (OECD)*

Eighteen Western European countries, the U.S., Canada and Japan are members of OECD which came into existence in September, 1961. In the field of scientific and technological cooperation, it serves as a forum for member countries in international cooperative efforts; assists member countries in evaluating potential projects and relating them to technological trends; and, establishes contacts and facilitates coordination of programs undertaken by member countries. Its R&D activities in the above contexts are carried out by two Committees—one for "Scientific Research" and the other for "Scientific and Technical Personnel."

OECD's operations relative to R&D initiated patents deal primarily with sponsorship of research and preparation of reports on national policies. Its activities also include analytical studies comparing developments in regional areas. Reports currently available on research policies in Spain,[6] United Kingdom,[7] Norway,[8] France, Belgium and Germany,[9] provide insights into such activities, patent policies based thereon, and the economic and trade ramifications of their "research expenditure—patent policy" frameworks. The OECD also published a report in 1965 entitled "The Effort in Connection with Research and Development in Western Europe, North America and the Soviet Union," seeking to compare the expenditures and resources that each of these areas devoted to R&D in 1962. The report contains statistics

by inventor R. Ramirez to Pan American Union, Washington, D. C., while application pending. PAU reassigned application to IBEC Housing Corporation.

[6] OECD publication *Scientific Research in Spain* (Paris: 1964).

[7] *Op. cit., Industrial Research Associations in the United Kingdom,* (Paris: 1967).

[8] *Op cit., Contract Research Institutes in Norway,* (Paris: 1965).

[9] *Op. cit., Industrial Research Associations in France, Belgium, and Germany,* (Paris: 1965).

relative to R&D expenditures, their allocation, and patent registrations emanating therefrom. It draws a number of conclusions relative to effects of the various policies pursued in each area including their trade and technological development impacts. The OECD also was responsible for organizing, in May, 1966, the European Industrial Research Management Association (EIRMA), whose main purpose is to promote effective research in Europe. It deals with such subject matter as improvement of management techniques in research, including application of research results in production. A major problem being looked into by EIRMA is the obstacle to technical innovation in Europe imposed by different national patent laws and methods for overcoming it.

It is thus apparent that OECD operates primarily as a catalyst, and secondarily as a forum, in bringing member nations together to work out their problems relative to patent policies in the R&D area. This may be accomplished by the member countries individually, or through specialized interest groups, whether sponsored nationally or internationally.

*The United Nations (UN) "Family"*

Three of the six principal UN organs—the General Assembly, the Economic and Social Council and the Secretariat—are active in international aspects of R&D patent policies.[10] Responsibilities in this field are also within the purview of two special UN bodies, the United Nations Industrial Development Organization (UNIDO) and the United Nations Conference on Trade and Development (UNCTAD). Additionally, there are a number of autonomous intergovernmental organizations related to the United Nations by special agreements, that operate in this field. Such organizations include the International Atomic Energy Agency (IAEA), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the World Health Organization (WHO). Research into UN activities indicates a growing trend towards cooperative relations, intra-UN, as well as with nonaffiliated organizations such as BIRPI, to effect meaningful international patent programs.

General Assembly (GA)

Within the framework of the GA's committee structure, a Model

[10] The other three not active in this area are the Security Council, the Trusteeship Council and the International Court of Justice.

Law Committee[11] was established to study, with BIRPI, legal problems connected with international transfer of know-how and technology. BIRPI had prepared and published in 1965 a "Model Law for Developing Countries on Inventions (Patents and Protection of Technical Know-How)." The Committee concluded that the Model Law reflects the developing countries' needs and contains helpful guidelines for strengthening and improving their laws. A number of developing countries have used it to effect changes.

Economic and Social Council (ECOSOC)

ECOSOC's activities in R&D patent policies are carried out primarily through its four regional Economic Commissions (for Europe [ECE], for Asia and the Far East [ECAFE], for Latin America [ECLA], and for Africa [ECA]) and through an Advisory Committee on the Application of Science and Technology to Development. The Economic Commissions have within their terms of reference responsibilities for initiating among the regional member countries, programs for enhancing R&D and for utilizing the results thereof in their economic development.

Within these terms of reference, the ECE's Trade Development Committee is under instructions to prepare recommendations to ECOSOC for removing economic, administrative and trade-policy obstacles to European trade. Among the problem areas to be studied by ECE are those dealing with "the practices followed for trade in. . . patents and licenses, having regard to the growing importance of industrial and commercial cooperation, . . . "[12] Tied in with this activity are ECE plans to organize meetings of governmental experts to study possibilities of expanding scientific and technological cooperation in conjunction with the work of other UN bodies and pertinent international organizations.[13]

In the course of their work in these fields, representatives of the ECE and its Trade Development Committee have cooperated closely with various organizations oriented towards R&D promotion, such as UNESCO, and with BIRPI. Specifically, BIRPI has been asked to provide a report on its activities relative to promotion of technological cooperation, for consideration by a Special ECE ad hoc Working

[11] Consisted of representatives of 22 developing countries and observers from UN and other international organizations.

[12] Resolution 1 (XXIII) adopted by ECE at its 23rd Session (21st meeting, May 2, 1968).

[13] Latest Resolution by ECE on this subject is 4 (XXIII) adopted at its 23rd Session (16th meeting, April 26, 1968).

Group. BIRPI has also been asked to provide to the Trade Development Committee, for a forthcoming meeting, information on trade in patents and licenses which the Committee might use to develop a program for further promoting such interchanges. The ECE has also undertaken work through its Industry and Materials Committee to develop standard clauses dealing with transfer and use of know-how in contract forms.[14]

ECAFE has a project underway for assisting member countries "in improving the quality of their products at home and to develop markets abroad." This emanated from Asian Ministerial Conferences in 1963 and 1965 and a Conference on Industrialization in 1965. In implementing the project, ECAFE assists governments in framing national patent laws, as well as standards institutes.[15] While the Economic Commission for Latin America and for Africa (ECLA and ECA) are also involved in programs related to R&D and technical assistance, such activities have not yet encompassed patent policy studies, as with ECE and ECAFE.

ECOSOC's Advisory Committee on the Application of Science and Technology to Development was established in 1963 to advise it on steps needed internationally to provide technical assistance to developing countries. The Committee has in preparation a World Plan of Action for the Application of Science and Technology to Development, recommending to ECOSOC steps to be taken globally, and in various economic sectors (agriculture, housing, health, transportation, etc.), for rendering such assistance. Within the global context, the final Plan will include recommended programs for effecting licensing and other interchanges of patents and unpatented technology between industrialized and developing countries, tentatively through UNESCO. Target date for completion of the Plan is not yet firm; presumably not before the end of 1970.

### Secretariat

Following a UN General Assembly Resolution in 1962 that it draw up a report dealing with economic ramifications of patents in developing countries, the Secretariat[16] prepared and presented to the UN

[14] Economic Commission for Europe *Annual Report* (April 29, 1967-May 2, 1968), ECOSOC Official Records: 45th Session, Suppl. 3, (UN [E/4491, E/ECE/711]), p. 106.

[15] Economic Commission for Asia and the Far East, *Annual Report* (April 18, 1967-April 30, 1968), ECOSOC Official Records, 45th Session (E/4498, E/CN.11/824) Suppl. 2, p. 165.

[16] Department of Economic and Social Affairs, Fiscal and Financial Branch.

a report on "The Role of Patents in the Transfer of Technology to Developing Countries" (E/386/Rev. 1). The report examined patent laws of various countries, as well as their international arrangements in this field. It also dealt with effects of patents on developing countries, transfer of technology thereto and relationships between patents and indigenous technological development. The report has proven useful as a basic background document for various bodies, such as United Nations Industrial Development Organization (UNIDO) and United Nations Conference on Trade and Development (UNCTAD), seeking ways to improve developing countries' industrial property systems and to encourage technical "know-how" flows to them. It has also become an important library reference work on national and international patent procedures.

In 1966, the Secretariat also submitted to the UN a report on "The Progressive Development of the Law of International Trade,"[17] proposing establishment of a United Nations Commission on International Trade Law (UNCITRAL). UNCITRAL was established, and held its first meeting, early in 1968. One of the subjects it intends to deal with, based on the Secretariat's recommendation, is the coordination of activities between international organizations active in the industrial property rights field.

### UN Special Bodies

As previously noted UNIDO and UNCTAD are the two special bodies active in patent matters.

In creating UNIDO, General Assembly Resolution 2152, of November 16, 1966, specified one of its functions to be "improvement of the international system of industrial property with a view to accelerating the transfer of technical know-how to developing countries and to strengthening the role of patents consistent with national interests. . ." In this connection, UNIDO is to cooperate "with the international bodies or intergovernmental regional bodies concerned with industrial property."

In carrying out this function, UNIDO adopted two recommendations at its first Symposium (Athens, November 29—December 19, 1967). One called for it to work closely with national and international organizations to study the impact of international industrial property arrangements on developing countries; the other advised developing countries, in their own interests, to strengthen their patent systems, so

[17] UN Doc. A/6396, September 23, 1966.

as to benefit from other countries' discoveries. UNIDO's work program for 1968 and 1969 approved by its Industrial Development Board includes "assistance to developing countries in the field of patents" with the cooperation of ECOSOC, BIRPI, and "other interested agencies."

UNCTAD, at its first Conference in Geneva, in 1964, called for industrialized countries to encourage owners of patented and unpatented technology to facilitate its transfer to developing countries and for developing countries to take all appropriate legislative and administrative steps to encourage such transfers.[18] At its second Conference in New Delhi, early in 1968, a draft Resolution was prepared to the effect that UNCTAD's Trade and Development Board should establish new intergovernmental machinery to examine problems of transferring technology to developing countries, including industrial property regulations. The draft Resolution was not adopted at UNCTAD II; it was referred to the Trade and Development Board for further consideration at its September, 1968 session. In the meantime, the draft was discussed at an ECOSOC session (45th, summer 1968) where it met with considerable opposition on grounds of duplication of work of existing bodies. ECOSOC asked for a further report on this subject for the 46th session and for deferment of Board action until it had considered the report. Accordingly, the Board, at its September, 1968 session, took no final action on the draft.

### Intergovernmental Agencies Related to UN by Special Agreements

There are a number of these agencies working with the UN, through ECOSOC, in a wide variety of fields, such as nuclear energy, labor relations, food and agriculture, health, international finance, air transport, and telecommunications. Those concerned in large part with fostering cooperative R&D are UNESCO, Food and Agriculture Organization (FAO), World Health Organization (WHO), World Meteorological Organization (WMO), and the International Atomic Energy Agency (IAEA). Except for IAEA, none has a research establishment or does research on its own account. Their activities take the form of coordinating or sponsoring R&D projects, or provision of technical assistance to governments as requested.

Likewise, with respect to patent policy, such is left to national determination by the member countries. An organization whose statute includes specific provisions on patent rights is the IAEA.

[18] Within the context of an adopted Recommendation on the subject of transfer of technology.

Article XI, F of the Statute, referring to R&D projects entered into by the Agency and its member governments, specifies in Section 5 that such agreements shall:

> Make appropriate provision regarding the rights and interests of the Agency and the member or members concerned in any inventions or discoveries or any patents therein, arising from the project;[19]

The UN "family" is clearly active in the field of R&D patent policy with emphasis on transfer of technology to developing countries. Basically, however, this activity is in the area of providing overall guidelines and other encouragement for the development of domestic patent programs for this purpose. As with the OECD, there is no UN body that maintains its own portfolio of patent rights based on the R&D areas in which it operates.

### *European Regional Activities*

The treaty establishing the European Coal and Steel Community (ECSC) was signed April 18, 1951 by the governments of France, Germany, Belgium, Italy, Netherlands and Luxembourg. They later signed the Rome Treaties establishing the European Economic Community (Common Market) and the European Atomic Energy Community (Euratom), which entered into force January 1, 1958. Until July 1, 1967, each Community had its own executive body (Commission and High Authority) and Council of Ministers. Under a merger treaty, effective on that date, a single Commission and Council replaced the other bodies and took over as executive authorities for the three Communities.

The three treaties have widely differing features relative to R&D promotion. It is a principal function of Euratom, an important aspect of ECSC's work and hardly mentioned in the Common Market Treaty.[20]

#### *European Common Market (EEC)*

EEC officials have indicated in recent years that while the need for common research policies was not obvious when the Rome Treaty was drawn up, absence of provisions for joint research may now be considered a glaring omission.

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[19] *Statute of the International Atomic Energy Agency (October 26, 1956)* U. S. Department of State Treaties and Other International Acts Series 3873.

[20] Only in Article 41 of the Treaty Establishing the European Economic Community which states that provision may be made for coordination of research in the agricultural sector. Also, no reference is made to promotion of a common

In recent action to correct this situation, a Resolution was adopted, October 31, 1967, wherein the single Council and Commission, as well as the six governments, declared their intentions to revive and promote scientific research and industrial innovation. The Council asked for special reports on cooperative research possibilities beginning with six key sectors—data processing, telecommunications, oceanography, meteorology, metallurgy, and water and air pollution.

*European Coal and Steel Community (ECSC)*

ECSC's research activities are authorized by Article 55,[21] of the Paris Treaty (April 18, 1951). Within this authority, the Community promotes cooperative efforts and undertakes joint financing for research into techniques for coal, iron ore, and steel production, and related activities, such as industrial health, safety, and housing standards for workers in these industries. The results of such research must be made available to all parties in the six countries' coal, iron ore and steel producing sectors.

The ECSC has no research institutes of its own; it subsidizes technical programs through research contracts with government, university, or private establishments in the member countries. International technical committees oversee each project. Generally, the dissemination of results from ECSC-sponsored projects proceeds along the following lines. The researcher must first make publicly available any results he may record in reports and other papers; the ECSC then summarizes these results for other prospective users. To promote utilization of the research results, it convenes meetings of interested industry representatives to discuss possibilities for introducing the new techniques, either generally or on a restricted basis, or experimentally.

*European Atomic Energy Community (EURATOM)*

Euratom's research activities, authorized under Title II of the Treaty, are conducted in five-year programs prepared by its directors

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science policy, except indirectly, as in Article 2 which calls for "harmonious development" of (Common Market) economic activities; Article 6 which calls for "close collaboration" in this respect; and Article 145 which calls for "coordinated" economic policies.

[21] Which states: "The High Authority shall encourage technical and economic research concerning the production and the development of consumption of coal and steel as well as labour safety in these industries. To this end, it shall establish all appropriate contacts among existing research organizations."

and national experts.[22] There are three basic activities—development of reactors, studies of thermo-nuclear reactions, and research on effects and uses of radiation. Euratom research is conducted directly through its Joint Nuclear Research Center and branch establishments, and through contracts with private research bodies, universities and industrial organizations.

Euratom has an extensive patent portfolio. According to the latest available statistics (as of August 1, 1966), over 2200 patent applications had been filed in Euratom's name and over 1200 in the name of parties associated with or under contract to Euratom, covering over 800 inventions in 26 countries. While the Euratom Treaty does not specifically require the Community to patent its sponsored R&D inventions, it does provide for regulation and use of those patent rights "which are the property of the Community" (Article 12). The Joint Research Center's personnel apply on its behalf for patents on inventions which it produces. For inventions resulting from Euratom contracts or other agreements, the contractors may apply for patents thereon in their names, subject to grant of royalty-free, irrevocable licenses, with sublicensing rights, to Euratom. If a contractor waives this right to file on an invention, Euratom has the right to file thereon, with the contractor in turn receiving a royalty-free, nonexclusive license, with sublicensing rights. Appendix B contains further details on Euratom's patent policies.

Euratom has cooperative research and development agreements with the U. S., U. K., Canada, Brazil and Argentina. The agreement with the U. S., which may be substantively typical of the others, specifies that with respect to inventions developed under the U. S.-Euratom joint R&D program, each party shall have the patent rights thereto in its own jurisdiction, with the other receiving therein a royalty-free, nonexclusive license. Patents on such inventions acquired by the U. S. or Euratom in third countries are also to be licensed to each other on a royalty-free, nonexclusive basis.[23]

Euratom is having serious difficulty securing agreement by the Six for a third five-year program (the second ended December 31, 1967) due primarily to budgetary considerations. Euratom is now operating under an interim Council of Ministers Resolution (adopted December 20, 1968) establishing a program for one year (January 1 to December 31, 1969), with decision on a long-term program scheduled soon to

[22] The first Five-Year Program (1958-62) allotted $215 million, and the second (1963-67), $455.6 million to Euratom for research purposes. The Euratom budget is financed by contributions from the six member countries.

[23] *Atomic Energy, Establishment of Joint Program* (U. S. Treaty and Other International Acts Series 4173) Agreement Between U. S. and Euratom, signed at Brussels, November 8, 1958.

be reached by the Commission and Council. Euratom's interim budget extends only to this date, for the present.

*Other Organizations*

A European Free Trade Association (EFTA) adhered to by Austria, Denmark, Norway, Portugal, Sweden, Switzerland and U. K., entered into force May 3, 1960. Finland became an associate member in 1961. Its purpose is to develop free trade in industrial products among the member countries through tariff and quota reductions in EFTA trade relations. The governing body is an EFTA Council, assisted by a number of Committees. An Economic Development Committee acts as a clearing-house for the exchange of knowledge on handling development problems. The EFTA Council recently accepted an invitation from the EEC to cooperate on R&D studies in a number of key scientific and technological projects.

The Council of Europe, in efforts to achieve more unity among its member countries (Western Europe), seeks to facilitate their economic and social progress through common action on scientific, as well as legal, economic and social matters. A major work program of this organization is "to contribute to the provision in member states, if need be on a joint European basis, of adequate facilities for scientific and technological research." In this connection, it is directing efforts towards promotion of a "European scientific research community" and "preparation and publication of pilot reports on main lines of research in progress in Europe . . . " Reports on European research resources were published in 1968 on "geography" and "radio-astronomy."[24] The Council of Europe has sponsored two Conventions now in force relating to patents—one, effective June 1, 1955, unifies and simplifies the Formalities Required for Patent Applications; the other, effective August 1, 1955, establishes a system of International Classification of Patents for Invention. The latter Convention did not become fully operational among the member countries until 1968. Both are open to all members of the Paris Union Convention.[25] A third Convention on the Unification of Certain Points of Substantive Law on Patents for Invention was concluded by Council of Europe Countries in 1963. It is not yet in force, since the required number of countries have not ratified it.

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[24] Council of Europe, Consultative Assembly, *Doc. 2564* (May 9, 1969), pp. 26-37 (Chapter III).

[25] Belgium, Denmark, France, Germany, U. K., Ireland, Israel, Italy, Netherlands, Norway, Spain, Sweden, Switzerland and Turkey adhere to both. Greece, Iceland, Luxembourg and South Africa adhere only to the first; Australia only to the second.

# CHAPTER III

## Policies and Practices in Selected Western European Countries and Japan

The two measures used primarily to compare countries' R&D efforts are percentage of gross national product (GNP) and manpower. As indicated in Table I (Appendix E), the U. S. devotes more resources in total, as well as in GNP proportions, to R&D activities, than any other industrialized country. The U. K. ranks second, with France, Germany and Japan comparing about the same. Of those smaller industrialized countries not shown in the Table, Netherlands is the only one besides Belgium spending a relatively high percent of its GNP on R&D (about 2 percent), according to latest available statistics (1964). Among other countries not shown, Sweden has about 1.5 percent; and Canada, Norway and Italy about 1 percent or slightly less. Other Western European countries are less than 1 percent.[26]

As to manpower resources, the U. S. employs about 700,000 scientists, engineers and technicians on R&D, with Japan running second at about 190,000, the U. K. third at 160,000 and Germany and France following with about 100,000 and 85,000 respectively (see Table II). Italy and Netherlands employ about 30,000 each, Canada about 24,000 and other industrialized countries, including those not shown in Table II, less than 20,000.

The heaviest concentration of R&D manpower in proportion to total population is in the U. S., U. K., Netherlands and Sweden, with the other advanced industrialized countries about the same on a much less absolute scale. Italy is far below all other Western European industrialized countries in this category of measurement.

Most industrialized countries have an overall body responsible for coordinating scientific activity, including formulation of R&D policies and related patent procedures. Examples are the U. S. Federal Council for Science and Technology, the French Interministerial Committee for Scientific and Technical Research, the Belgian Interministerial Commission, and the Italian Interministerial Committee for Reconstruction. Policies are implemented through the various agencies and departments within the government's framework. However, a number of governments rely heavily on quasi-governmental organizations for advice and assistance in carrying out their R&D programs.

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[26] OECD publication *The Overall Level and Structure of R&D Efforts in OECD Member Countries* (Paris: 1967), pp. 14-15.

Governments, of course, insure funds for R&D financing through allocations in their national budgets. Such funds are used for R&D work undertaken directly by their own research institutes, as well as for R&D grants and contractual arrangements with nongovernmental organizations. To many governments, an uppermost consideration in such financing is the need to develop potentially profitable inventions and to insure that patent rights thereon are properly acquired and utilized in the public interest. In addition to direct subsidization, many governments have also taken other steps to assist firms, particularly so-called smaller and medium sized ones, in developing inventions. These include grants of low interest loans for such purposes, as is done in Belgium, Japan, and the U. K.

There follows a more detailed description of the situation in selected countries with respect to R&D and related patent procedures. The situation in the U. S. is discussed in Chapter IV.

*United Kingdom*

The U. K. Minister of Science, whose office was created in 1959, supervises the Council for Scientific and Industrial Research, as well as other agencies concerned with nonmilitary R&D. The Council is in charge of the Department of Scientific and Industrial Research (DSIR), the government agency directly empowered to institute and subsidize industry research programs. Presently, one of its major programs is to provide grants to "approved associations for research" organized by industry groups. In 1965, there were 50 such grant-aided associations in a wide variety of industries including shoe manufacture, cast-iron products, fruit and vegetable canning, glassware, heating and ventilating equipment and biological research. They are nonprofit organizations, incorporated under the Companies Act of 1948, having as their main object the carrying out of research for a specified industry or groups of industries. It is estimated that the industries served by these associations account for about 70 percent of total sales of U. K. manufacturing and construction firms.[27]

Research results of the grant-aided associations are generally avail-

[27] Latest figures available are those published in 1965 by OECD in *Industrial Research Associations in U. K., op. cit.* note 7. The first research association was established in 1918 (photographic industry); the program was expanded under various government-aid activities; the present program operates under the Department of Science and Research Act of 1956. Eleven of the associations are over 40 years old and 22 between 10 and 20 years old. All are reportedly building or have their own laboratories. Company membership may be anywhere from 15 to 3000 per association.

able to the member firms, as well as to the Advisory Council. As to patent rights, an invention emanating from grant-aided R&D, which the responsible association believes is worth patenting, must be made the subject of an application before being turned over to its membership. The association must obtain DSIR's approval before filing a U. K. or foreign application on the invention. In this connection, DSIR exercises the right to see that the invention is made available to other pertinent industries on reasonable terms and is applied for abroad on a sufficiently wide geographic basis. The associations exploit their patent rights by licensing them to members, usually royalty free (or for very low preferential rates) and to nonmembers on a higher nonpreferential royalty payment basis. Associations may also transfer their rights to "development companies" which they control. The latter, being profit making and liable for income taxes, are assigned the responsibility for commercial exploitation of the associations' patent rights. Associations may also transfer their patent rights under royalty sharing arrangements to National Research Development Corporation (NRDC), a quasi-governmental organization (discussed below) engaged in exploitation of R&D inventions in the public interest. In some instances, the associations themselves may directly manufacture under the patent rights, as cooperative units.

An important entity in the U. K.'s R&D patent picture is the aforementioned National Research Development Corporation. It was established under the Development of Inventions Act of 1948, as amended, to promote adoption by industry of new inventions developed in government laboratories, universities and elsewhere. It is an independent public corporation, financed with government loans under the jurisdiction of the Minister of Technology. The Corporation does not manufacture or have its own R&D facilities. Occasionally, however, NRDC will set up subsidiary companies to develop certain inventions. Its functions, specified in the 1948 Act, are: (a) to seek to license inventions derived principally from government-financed research and also from other sources; and (b) to make funds available to support further development of inventions to the stage of potential industrial interest or to support joint development projects with industry.

From 1949 to 1966, about 15,000 inventions were submitted to the Corporation and more than 3,700 were accepted for potential licensing. About two-thirds of the assigned inventions derive from government-owned or controlled research establishments.[28] The Corporation

[28] *Industrial Research and Development News* Vol. II, No. 1 (January 1967), p. 18. Published by UNIDO.

has a statutory obligation to find licenses for these. Universities supply most of the remaining inventions. Very few private firm inventions are assigned to NRDC. If a private invention is considered suitable in the public interest and accepted for development, the Corporation negotiates an agreement with the holder, on condition that the NRDC must secure a claim on all rights or on a proportion of them sufficient to protect its interest.

The Corporation maintains liaison with all university science departments to be immediately aware of promising inventions. Patent applications are normally made at NRDC expense and the Corporation bears the responsibility and expense for promoting the adoption of the invention by industry.

On inventions from government sources handled by NRDC, patent rights are automatically transferred to the Corporation. For nongovernment inventions there is no such automatic transfer. On university inventions, the standard agreement provides for a transfer of rights to the Corporation and for a division of revenue between the parties. The rights of the individual inventors in relation to their own employers depend on the terms of their employment. In this connection, the Corporation must take account of any supporting grants from private institutions and of separate research contracts with government departments or industry.

NRDC does not act as agent or patent broker on behalf of private inventors but, as previously noted, it assists in the development of their inventions, if considered to be in the public interest. The number of inventions accepted from private inventors is small. As soon as NRDC determines an invention to be ready for introduction to industry, suitable firms are notified. When an interested firm is found, the Corporation negotiates a license with it under the patent rights. Normally, this is a nonexclusive agreement providing for a percentage royalty on sales. Licenses are also granted to firms abroad.

Financial support for development projects is another NRDC activity. The Corporation has discretion to finance the design and construction of experimental models, the production of pilot-scale quantities of chemicals for clinical or field tests, the construction and trial of prototypes, or the adaptation of a known technique in one industry to the needs of another.

*France*

The French government's National Center for Scientific Research (CNRS) is its principal organization for implementing national re-

search policy. It promotes and coordinates research activities through relations with over 100 independent establishments, including universities and private laboratories, and thousands of researchers and technicians on its own staff.

Also important in the French R&D picture are the Industrial Research (or Technical) Centers and the National Association for Technical Research (ANRT) which coordinates their activities. The latter is a quasi-governmental organization consisting of industrial and research representatives, public and private, and university specialists. ANRT's work is handled through a number of technical and general administrative committees.

The Industrial Research Centers engage in collective projects on an industry-by-industry basis. Such projects may be directed toward solving of technical problems or the establishment of liaison arrangements for exchanges of information, documentation, and specialists. Their major financing is from members' contributions; government subsidies and loans are supplemental. French patents acquired by any Center member, based on collective research, are generally available royalty free to that Center's other members in France, and on a royalty basis to domestic firms in other industries and to those abroad. There is no uniform patent policy within the Research Centers' operations. Patent policy is determined by each Center's Director, depending on the degree of protection he believes is desirable. ANRT provides a channel for the Directors to exchange experiences and views in determining the size and substance of their patent portfolios.[29]

*Belgium*

About three-fourths of the research associations in Belgium are categorized as ASBL's (nonprofit making); they operate tax free and engage in commercial transactions. Additionally, there exist about a dozen nonprofit government-sponsored Joint Research Centers (so-called de Groote Centers) to undertake R&D in selected industry sectors including timber, ceramics, chemicals, hides and skins, textiles, breweries, metal products, public works, food canning, building construction and cement. A few associations have established themselves as commercial, profit-making research organizations thereby subjecting themselves to company law and taxes.

Government subsidies for R&D are granted through the Institute

[29] OECD publication *Industrial Research Associations in France, Belgium, and Germany, op. cit.*, p. 41.

for Encouragement of Scientific Research in Industry and Agriculture (IRSIA). They are granted on condition that the research results are to be accessible to other firms in the sector of the recipient association or individual firm. Research into the Belgian framework did not reveal any uniform R&D patent policy except the indication that patents derived from government-financed R&D must be accessible under the above described conditions.

*Federal Republic of Germany*

The principal entity used by the German government to implement its R&D policy is the German Research Association (DFG). It is permitted to operate autonomously and to determine the research projects it will finance. DFG has no research institutes of its own and does not enter into contracts; it awards grants for projects approved by it. For its financing, DFG relies on grants from the federal government, the Länder, and industry.

Fundamental research is conducted mainly through universities and other higher institutions of advanced technology. Industry, as well as government, relies a great deal on the universities for contractual research work. The government itself has about 50 federal research institutes. Its contractual work is handled by the Research Contracts Agency, established by DFG.

Perhaps the most important research organization in Germany is the Max-Planck Society (successor to the Kaiser Wilhelm Gesellschaft). It is responsible for about 45 institutes and laboratories carrying out research primarily in natural and medical sciences; some through branches abroad. The Society receives about one-third of its financing from the government, almost 50 percent from Länder grants and the remainder from industry contributions.

Another important entity in German R&D is the Association of Research Groups in Industry (AIF) embracing about 80 percent of the country's research groups in various industries. AIF's costs are met by the subscription dues of members and by grants from the Government. Specifically, the organization assists its members in preparing applications for government assistance, and in operating as a clearinghouse and forum for their exchange and coordination of subject matter. It is also important in serving as an agent between industry and government in matters of common research interests.

Within AIF's information exchange facilities, the member institutes may sell, license or otherwise disseminate their research results, including those covered by patents. The results of contractual work, in particular, are usually published.

*Japan*

Unlike other highly industrialized countries, the percentage of total R&D expenditures accounted for by the Japanese government is comparatively low (about 30 percent, as compared to about 60 percent or more, in the other countries). Private enterprises account for a large proportion of Japanese scientific and engineering R&D; national institutions and universities play a major role in the agricultural and medical fields. Research and experimental institutions associated with the prefectures are also active on behalf of regional industries and public welfare programs.

Within the government sector of Japanese R&D, there is growing reliance on special corporations and contract research. The government agencies directly involved in R&D for industrial development are the Ministries of International Trade and Industry (MITI), of Agriculture-Forestry (AFM), and of Transportation (TM). Measures to assist private sectors in R&D include subsidies and tax relief as well as research contracts. The Research Development Corporation of Japan is an important entity in R&D contractual promotion. The subsidy systems are within the purview of the Japan Development Bank and the Fund for Promotion of Domestic Technology.

The Japanese are also undertaking programs for expeditious collection and distribution of scientific and technical information. Such activities are being conducted primarily by academic societies, the Japan Information Center for Science and Technology, and through other library facilities.

Strong emphasis by the Japanese government is being placed on strengthening of the patent system as a means of furthering R&D. More efficient procedures for evaluation of R&D results to determine their patentability, and for evaluation of R&D inspired patents to effect their optimum utilization, are also recognized as important objectives. The government is particularly concerned about the need for better management and use of patents which it owns. Among other problems now being dealt with are methods to expedite application search and examination procedures and ease growing backlogs. Efforts are also being made to encourage more Japanese patenting abroad.

*Scandinavian Countries*

Although these countries do not have the magnitude of R&D as do the aforementioned, some interesting features of R&D activity in Norway and Sweden are worth noting.

The Norwegian Council for Scientific and Industrial Research

(NTNF), established in 1946, is the principal entity responsible for promotion of R&D and dissemination of the results in the public interest. It is a quasi-governmental body, reporting to the Ministry of Industry and consisting of government, industry and research institute representatives. A Norwegian Research Council for Science and the Humanities, and The Agricultural Research Council, are corollary bodies.

Three universities (Trondheim, Bergen and Oslo), three nongovernmental contract research institutes (Central Institute for Industrial Research [SI],[30] Engineering Research Foundation of Technical University of Norway [SINTEF], Christen Michelsen's Institute [CMI]), and about 40 lesser research institutes account for the bulk of R&D performance in Norway. As to sources of research financing, a percentage of net profits from the Norwegian Football Pool System is used for such support. Government financing of R&D is handled by NTNF and the two related bodies—generally through grants.

The aforementioned contract institutes handle work for "sponsors" who need R&D assistance. Sponsors have all rights to inventions which are a direct result of their contract work; the institutes have all rights to inventions which may be related to the projects but are not a direct result of the contracts. Where the institutes do acquire patent rights, they usually apply therefor only in Norway.

In Sweden, a quasi-governmental body similar to the U. K.'s NRDC was established last year, with virtually the same purposes. Known as the Swedish National Development Company, its purpose is to "Develop, produce and market new products, methods and systems, in particular those that meet the urgent needs of society or those promoting activities within the State sector."[31] It is currently directing attention to such fields as medical technology, air and water pollution prevention, traffic safety, and production of certain consumer food products. It works in cooperation with private firms, universities and research institutes to develop innovations and determine their most effective commercial utilization. It may buy an entire interest in a project, and either resell it after it has been properly developed, or license the resultant products or technology. Since the company's inception, it has received about 60 project proposals, about half of which are under study. About 10 percent have resulted in agreements with the proposer for concerted action based on available funds. The

[30] Governing Board appointed by NTNF.

[31] Swedish National Development Co., *Semi-Annual Report August 1968-February 1969.*

Company has already established about five subsidiaries, fully or jointly owned, to perform certain specialized work, including dental technology, loudspeaker systems and materials treatment. Some of the joint companies were formed with private organizations that own patents for the projects to be further developed.

The Swedish Royal Academy of Engineering Science coordinates work of various research commissions in that country. In Sweden, there are often formal contracts between the government and the industry involved under which the government provides buildings and certain services and in addition pays the salaries for basic research. Industry, on the other hand, accepts the responsibility for providing financing to cover the normal running expenses and for the applied research staff. These agreements are usually made for five-year periods. The industrial support is normally provided through the pertinent industrial research association.

# CHAPTER IV

## Policies and Practices of the U. S. Government

R&D funds originating within the U. S. are generated by four sectors—the Federal Government; industry; universities and colleges; and other nonprofit institutions. In recent years, the federal government has accounted for about 60 to 65 percent of total U.S.-origin R&D outlays, up from slightly over 50 percent in the early 1950's.

As indicated in Table III, federal outlays for R&D have shown a tendency to level off since 1966. The National Science Foundation (NSF) notes that this is a reflection of the slower R&D growth trend that began in the mid-1960's, and to budget trimming leading to reduced expansion rates. NSF emphasizes, however, that it should not be inferred that R&D is no longer a fundamental aspect of government policy. R&D are basic to those agencies heavily dependent on development of equipment, instruments and power sources, such as Department of Defense (DOD), National Aeronautics and Space Agency (NASA) and Atomic Energy Commission (AEC). Also, research programs by such agencies as Departments of Interior, of Transportation, of Agriculture, and of Health, Education and Welfare (HEW), are well established, even though some curtailment may occur.[32] A breakdown of federal R&D expenditures by agencies appears in Table IV.

### *R&D Performance*

During World War II, the government turned to outside sources to meet its urgent R&D needs; this practice has continued and expanded. Since the early 1960's, about 75 to 80 percent of the government's R&D work has been performed by outside entities. They include industrial firms, universities and colleges, other nonprofit institutions, and Federally Funded Research and Development Centers (FFRDC's) administered by those three types of organizations—all operating under grant or contract. In 1968, industry accounted for about 60 percent of all federally-funded R&D work, universities and colleges about 9 percent, and other nonprofit organizations and

[32] National Science Foundation, *Federal Funds for Research, Development, and Other Scientific Activities Fiscal Years 1967, 1968, and 1969,* Vol. XVII (NSF 68-27), pp. 2-5.

FFRDC's about 9 percent. In-house R&D performed by the government itself declined from about 35 percent in the early 1950's to about 22 percent in 1968. Government laboratories primarily responsible for conducting R&D are those belonging to DOD, NASA, HEW (mostly, National Institutes of Health) and Department of Agriculture (mostly, Agricultural Research Service).[33] About one-half of 1 percent of total government R&D outlays is spent in grants or contracts to facilities in about 60 countries. Four agencies (HEW, DOD, Agriculture and AEC) account for about 95 percent of the total foreign expenditure.[34]

### *R&D Patenting*

#### *Regulatory Framework*

The Presidential Memorandum and Statement of Government Patent Policy, issued October 10, 1963,[35] established, for the first time, a consistent U. S. policy with respect to patent rights on inventions arising from government-sponsored R&D. (See Appendix C). Prior to 1963, there were two basic Executive Orders on this subject: E. O. 10096, January 23, 1950, on disposition of invention rights between government and its employees, as amended by E. O. 10930, March 24, 1961; and E. O. 9865, June 14, 1947, on protection abroad of employee inventions resulting from government R&D.

The Presidential Directive of 1963 has two explicit purposes—to achieve a consistent federal patent policy, and to promote commercial utilization of inventions emanating from government R&D contracts.[36] The policy seeks to encourage full industrial participation in the government's R&D efforts; to consider the equities and commercial positions of government contractors; to encourage the expeditious development and civilian utilization of the results of government-sponsored R&D; and to insure that the public interest is adequately

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[33] *Ibid.*, pp. 6-8. Also, National Science Foundation, *Research and Development in Industry*, 1966 (NSF 68-20), pp. 5-12 for further details on role of U. S. firms by size and financing in U. S. R&D picture.

[34] U. S. Government R&D expenditures overseas were $63 million in 1967; estimated at $61 million in 1968 and $83 million in 1969. (NSF 68-27, *op. cit.*, pp. 50-51).

[35] Published in Federal Register, Vol. 28, No. 200 (October 12, 1963).

[36] For cogent, objective analysis of underlying factors leading to this Directive, see article by Robert A. Solo, "Patent Policy for Government-Sponsored Research and Development" in *IDEA*, Vol. 10, No. 2, (Summer 1966), pp. 143-152.

protected. It is based primarily on four principles:

(1) R&D sponsored inventions are valuable resources, the rights to which should be allocated in a manner optimizing U. S. government and commercial needs;
(2) Public interest requires expeditious civilian utilization of such inventions;
(3) Due to differing responsibilities of federal agencies, no uniform approach to allocation of invention rights is possible; therefore, flexible but consistent patent policy is in the best public interest; and
(4) Allocation of R&D invention rights should be made as soon as possible.

Several criteria are established for allocating patent rights between the government and its contractors. The government is to retain principal rights when the end item is intended for commercial public use; or the project is concerned with public health and welfare; or the contract pertains to a field where the government has been principal developer and title to contractor might give him dominant commercial position; or the contract requires operation of a government research or production facility or coordination and direction of the work of others. Where the government obtains a domestic patent on inventions to which it has title, it grants a nonexclusive, royalty-free license thereunder to all responsible applicants.

According to the 1963 Directive, when the purpose of a contract is to "build upon existing knowledge or technology" to develop end items for use by the government, and "the contractor has technical competence directly related to an area in which he has an established nongovernmental commercial position," the contractor receives principal rights to inventions under his R&D contract. The government receives thereunder a worldwide royalty-free, nonexclusive license for governmental purposes.

The agencies responsible for most of the government's R&D financing have revised, or are in process of revising, their regulations implementing the Presidential Directive. Most recent changes have resulted primarily in the government acquiring greater rights to R&D inventions than previously.

DOD, which before the Directive, normally acquired a license under contractors' inventions, leaving title to them, has reversed this trend to some extent. During fiscal year 1966, it used a license clause in 82 percent and retained title in 7 percent of its R&D contracts. Before 1963, it retained title in only about 0.2 percent of the contracts

it concluded.[37] HEW, generally a "title policy" agency, has continued to allow nonprofit educational organizations to retain title to R&D inventions, if such organizations have a policy of administering patents in a manner determined by HEW to be in the public interest. Other important R&D agencies have continued to follow their general policies of acquiring title, namely, Agriculture, Federal Aviation Agency, Interior and AEC. NASA uses a policy of evaluating each invention, when an R&D contractor petitions for waiver of commercial rights, to determine whether they should be granted. It is, however, basically a "title policy" agency.[38]

The Presidential Directive also established a Patent Advisory Panel, under the Federal Council for Science and Technology, to develop recommendations for further implementing the policy objectives. A Committee on Government Patent Policy was established in 1965 by the Council to study and evaluate the effects of this directive.

*The Overall Pattern*

Federally financed R&D generates about 4 percent of all patent applications filed each year in the U.S.[39] The R&D invention disclosures received by the government from contractors have continued to increase (from 7,600 in FY1963 to 9,900 in FY1966), while the number from government employees have remained about the same (within a 2,800 to 3,000 range from FY1963 to FY1966).

As indicated in Table VI, about 95 percent of invention disclosures received by the government are from DOD, NASA, AEC and HEW projects. The government acquires principal rights to about 75 percent and license to about 20 percent of all invention disclosures received from its employees (employees retain complete rights to about 5 percent of the number of disclosures submitted); it acquires principal rights to about 80 percent of the invention disclosures received from

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[37] Federal Council for Science and Technology, *Annual Report on Government Patent Policy* (Washington, D.C.: G.P.O. June 1967), p. 39.

[38] For further insights into agency R&D patent policies, see results of studies by The PTC Research Institute, published in *IDEA,* conducted by staff members Drs. D. S. Watson and M. Holman, Vol. 4, Conference Number, 1960, pp. 24-26; Vol. 5, No. 4 (1961), pp. 287-96; Vol. 7, No. 2, pp. 109-61; No. 3, pp. 321-75. Conference Number, 1963, pp. 41-44; Vol. 8, No. 2 (1964), pp. 168-198; Vol. 10, No. 1 (1966), pp. 61-74. Also, "Federal Patent Policy in Contracts for Research and Development," Vol. 4, No. 4 (1960).

[39] Total patent applications filed in U. S.—90,663 in FY1968; 88,508 in FY1967; and 93,391 in FY1966 (latest published U. S. Patent Office statistics). Latest published statistics on U. S. R&D patent applications filed are for FY1966 (see Table VI)—3,971, or 4.3% of total U. S. filings.

R&D contractors. Patent applications are filed on about 30 percent of the disclosures reported by contractors and on about 40 percent of those received from employees. Of all patents issued to the government, about one-half are attributable to contractors' and one-half to government employees' inventions. The government obtains patents on about 70 percent of all applications it files.

Where the contractor retains title to an R&D invention, he is required to file a patent application on it. But, because of financial and personnel limitations, the contractor is usually interested in acquiring title only to those inventions having obvious potential commercial usefulness. Thus, the U.S. government acquires title to a large number of contractor invention disclosures that revert to it. But, the government is likewise very selective of those contractor inventions it wants to patent. Since the contractor has acquired title to the most promising inventions, the remaining ones may not involve subject matter in which the government is particularly interested in patenting. Nevertheless, the Federal Council for Science and Technology reports that the present system "assures the Government of obtaining patent protection for the most promising inventions resulting from its research and development."[40]

Where no patent protection is sought and no security considerations are involved, invention disclosures may be published by the government for general availability to the public. During FY1963-68, over 27,000 disclosures, on which no patent protection was obtained, had accumulated.[41] Some agencies, such as HEW, Agriculture, and National Science Foundation, have arranged for publication on many such disclosures. Also, many disclosures are published in technical literature and in contractor prepared reports made publicly available through such U. S. government facilities as Atomic Energy Commission's Division of Technical Information Extension (P.O. Box 62), Oak Ridge, Tennessee; National Aeronautics and Space Administration's Scientific and Technical Information Division, Washington, D.C.; The Clearinghouse for Federal Scientific and Technical Information, 5285 Port Royal Road, Springfield, Virginia; and the Library of Congress' National Referral Center for Science and Technology, Washington, D.C.

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[40] Federal Council for Science and Technology, *Annual Report, op. cit.*, p. 36.
[41] *Ibid.*, p. 37.

# CHAPTER V

## Policies and Practices in Privately Conducted R&D

Privately conducted R&D emanates from three sources—independent organizations (industrial concerns or research institutes); cooperative research associations; and academic institutions. The work they perform is not necessarily mutually exclusive. Entities in each category may work for each other in contract, licensing or subsidiary relationships; or in joint programs—for government or private purposes. The types of organizations to be discussed in this chapter are those not government-owned or controlled, so far as is known to The PTC Research Institute.

### *Independent Organizations*

In most industrialized countries, leading manufacturing firms carry out their privately financed R&D in their own laboratories. Additionally, they may enter into contracts with private research institutes on special projects, or enter into some form of cooperation with other firms through associations. Where a research firm in the U. S. or abroad may perform under an R&D contract with a private sponsor, the results of such R&D, including proprietary rights to inventions, technology and patents derived therefrom, generally belong to the sponsor for whom the contract is being performed. There may be special situations where the research institute is allowed to retain proprietary rights on inventions developed from advanced technology which it introduced and refined in the course of the contract performance on a particular project.

Since the end of World War II, multinational industrial research institutes have assumed important roles in the R&D field. Three such well known U. S.-headquartered organizations are Battelle Memorial Institute, Columbus, Ohio; Stanford Research Institute, Menlo Park, California; and Arthur D. Little, Inc., Cambridge, Massachusetts.

Not to be overlooked, however, are the private institutes that are national in scope in their countries of domicile. Examples are such organizations in the U. K. as Fulmer Research Institute (metallurgy and allied subjects), International Research and Development Co. (varied) and Sondes Place Research Institute (chemical and mechanical engineering). Three important independent institutes operating

commercially in France are Institute for Scientific and Industrial Research (ERSI), Center for Contract Industrial Research (CRIC) and Lorraine Scientific and Industrial Research Institute (ERSILOR). Their funding depends almost entirely on industrial contracts. The Institut Pasteur, concerned with biological research, is financed primarily from its contract work and from gifts. In Germany, there are about 15 private institutes that undertake research for industry in such fields as iron and steel, chemicals, and paper making.

U. S. industries and universities, and government agencies, have found independent research and patent management organizations to be highly useful for their R&D work. There are many such independent organizations in this country undertaking a wide variety of R&D related activities. These include direct research in their own laboratories for a contract "sponsor," grants to universities for R&D purposes, financial assistance to small and medium-sized industrial firms for such purposes, and management of patent portfolios and conduct of licensing operations under contract. The activities of a selected cross section of U. S. firms performing such services, in this country and abroad, are described in Appendix D. A number of the larger U. S. firms such as Battelle, A. D. Little and Stanford Research, are far more broadly based with a greater variety of technical expertise than the largest European independent, or even cooperative laboratories.

*Cooperative Organizations*

Cooperative research associations were previously discussed within the context of government policies and procedures in Chapter III. Here, they will be discussed from the standpoint of the R&D work they perform for groups of companies in private industry sectors.

In Europe, cooperative research is emphasized more than in the U. S. The movement is strong in the U. K., where, as noted in Chapter III, there are about 50 such associations. Other Western European countries have extensive cooperative R&D activities, those in France, Germany, Netherlands and Belgium being particularly active.[42]

The difference in emphasis between the U. S. and Europe may be accounted for as follows. First, the possibility of antitrust complications is probably a discouraging factor to joint research activity among competing firms in the U. S.[43] This is unlike the situation in many

[42] OECD publication, *Government and Technical Cooperation* (Paris: 1968), p. 38.

[43] It may be largely for this reason that independent research organizations

European countries where joint "rationalization" in industrial sectors is encouraged. Also, industrialized organizations abroad are not so heavily capitalized and, therefore, find it more necessary to finance R&D costs through joint operations. With few exceptions, federal funds are not usually given to trade associations in the U. S. to initiate R&D activities, or to assist them in such work already started. This is in sharp contrast to the situation in many countries, where associations are extensively assisted by government grants.

In the U. S., relatively few patents are developed through trade association-financed R&D; many associations generally make their results available to the public. Most association R&D money is spent in service rather than product research where patentable items are not likely to be developed (i.e., products and procedures testing, raw materials problems, and information dissemination). Although most of the 2,000 plus national trade associations in this country feature technical discussions at conventions, sponsor research conferences, cooperate closely with universities, government agencies and research institutes, and otherwise encourage their members to be R&D minded, more than half of all U. S. trade association research expenditures are by only about 30 of them[44] A few associations may use mostly the facilities of universities and research institutes for their R&D. However, most of the leading R&D associations have their own laboratories; some also support outside research.

The main function performed by cooperative research organizations is to carry out R&D programs commonly agreed upon by the member firms. While such organizations may vary in size and scope of operations, country-by-country; industry-by-industry, they have one thing in common—performance of research for the benefit of all member companies regardless of size.

Also, cooperative research is generally related to overall problems of interest to an entire industry, rather than an individual firm. The result is that a cooperative group rarely engages in an R&D project

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have grown in importance in the U. S., more so than other countries, directed to meet individual needs of the principals for whom they perform, under conditions which insure that the results obtained are not made available to anyone else without the principal contractors' permission. It should be noted, however, that many European cooperative associations are now carrying out confidential research for individual sponsors in addition to joint research for industry as a whole. (OECD publication, *Structure of Industrial Research Associations* (Paris: 1965), p. 36.)

[44] *Technical Research Activities of Cooperative Associations,* Study for U. S. Senate Judiciary Committee's Subcommittee on Patents, Trademarks, and Copyrights (No. 21, Washington, D.C.: G.P.O. 1959), p. 22.

which leads to patents. Such proposals are normally handled by individual firms. Cooperative research is thus primarily a supplement, not a replacement for firms' individual efforts. There are certain exceptions, however, such as the U. K.'s Shirley Institute. Although it receives public funds, it is financed largely by the British textile industry to engage in R&D on its behalf. While all member firms are entitled to its R&D results, there are innovations considered best left to introduction and exploitation through a single company. Thus, a separate firm, Shirley Developments, Ltd., was formed to exploit the Institute's discoveries and inventions, primarily for the benefit of the British textile industry. The company is the prime licensee of all Shirley patents, with authority to grant sublicenses for manufacture and sale on a royalty basis.[45]

*Universities*

Universities conduct R&D under contract, or on their own behalf. Chapters III and IV touched on their role in various countries' R&D frameworks. This section will elaborate on their activities in the U.S.

Inventions made in universities result from four basic types of sponsored research: intra-institutional, governmental, industrial, and foundation-supported.

Assistance provided by the university itself may include salaries for the investigator and assistants, equipment, laboratory and library facilities, and other supporting services. Both the institution and the researchers generally have rights in the inventions resulting from such intramural research. Universities generally follow one (or perhaps more) of the following basic positions on patent policies relative to the R&D they sponsor:

(1) Individual inventor has full responsibility for disposing of his idea or invention.
(2) University administers any patentable discovery or invention and rights thereunder under its own formalized research and patent policy procedures.
(3) University turns over to an independent firm, responsibility for managing its R&D patent and licensing activities.
(4) University has no desire or considered necessity for formulation or conduct of a patent program.

In the U. S., government financial support for a university's particu-

[45] *Ibid.*, pp. 22-23.

lar scientific research project may be total or partial. Regulations vary from agency to agency, but in every case the government's rights in such inventions must be specified before the inventors or institutions may assert their own rights.

Industry-sponsored R&D in this country generally involves well defined procedures for disposition of inventions. Such R&D is intended primarily to obtain profitable new products or processes. In return for its contributions, industry generally asserts a partial or entire right to the resulting inventions as part of the sponsorship arrangement.

U. S. private foundations which support R&D in universities generally do so as a contribution to the latter's academic programs and to the development of new scientific information. In few such cases does the foundation claim rights to any discoveries or inventions which may result.

Patenting and licensing programs are undertaken on behalf of American universities in several ways. Patent lawyers and commercial patent brokers may be utilized. Usually the services provided by such individuals are limited in scope, and frequently provide only patent filing and prosecution or an introduction to potential licensees. Negotiating licenses, defending validity, and policing for infringement are still the responsibility of the university.

Some universities develop patents and licenses through separate nonprofit foundations associated with and oriented exclusively towards the particular institution. Such foundations have been quite successful in certain instances, such as the Wisconsin Alumni Research Foundation. The two major nonprofit organizations most active in patenting and licensing for a large number of American universities are Research Corporation and Battelle (both described in Appendix D). A wholly owned subsidiary of the University of Illinois Research Foundation, University Patents, Inc., undertakes patenting and licensing activities for educational institutions, as well as industrial firms.

The University of Cincinnati, in a recently completed report on R&D patent policies of 141 American universities, notes that a trend of the past three years reflects an increasing percentage of universities applying for patents.[46] The report indicates that more attention is being directed to R&D as it continues to grow and more institutions realize the importance of productive research activities on their campuses. Eight of the universities surveyed have agreements with independent organizations to act as their patent management agencies and

[46] Published by University of Cincinnati, June 1968. Conducted by C. Thomas Innis, Assistant to the Director and Gerald L. Shawhan, Director, Department of Institutional Studies.

handle patentable inventions on their behalf. Such organizations also act as such for inventors among faculty and staff who voluntarily assign their inventions to them.

Other characteristics revealed by the University of Cincinnati study are:

(1) Only 54 of the 141 institutions have a patent assignment requirement in the employee's contract for activities supported entirely or largely by university resources. Of this group, 23 give complete assignment to the school and 21 reserve the right to act on each case individually.
   (a) Fifty-two of the above 54 schools extend their patent assignment requirements to cover inventions resulting from research carried on while using campus facilities but outside of the employee's regularly assigned duties.
   (b) Of the schools which have the patent assignment requirement 83% will accept other organizational or private research contract sponsorship.

(2) Twenty-four institutions reported the existence of dual ownership patent rights. Fifty-two percent of the universities have a special group or committee which evaluates potential patentable material and recommends whether or not a patent search should be made. The largest percentage of schools having such committees are those with enrollments in excess of 20,000 students. In general, these are patent committees or ad hoc committees and usually report to the President, Chancellor, or the Vice President for Research.

(3) More than 80% of the universities having patent assignment requirements also have a procedure for remuneration to the inventor, if the institution is granted full patent rights. Almost 50% of these schools give the inventor 15 to 18% of the net income resulting from the patent. Several schools indicated this amount is negotiable on an individual basis. In almost all cases, institutional recipients of patent income allocate this money to a general fund or a research and patent fund.

# CHAPTER VI

## Summary of Findings, and Proposals

The subject of "R&D" has become an important part of Europe's economic and defense picture as it has in the U. S. While defense, space and nuclear energy needs still dominate the R&D field, in many industrialized countries such needs are not isolated from national economic and social goals. Close ties in this field exist between governments, industrial organizations, and universities in achieving national and international objectives.

Among developing countries, indigenous R&D is negligible while basic technology is needed to raise standards of living and enhance trade and economic development. At present, these countries must rely almost entirely on importation of technology as the channel of acquisition. They are not, however, completely oblivious to indigenous R&D development, and the need for adequate patent systems. There is clearly a growing recognition among such countries of the role played by patent systems in encouraging initiative from their own nationals and from foreign enterprises prepared to make their technology available. In latter instances, this is done through licensing, research centers, manufacturing facilities, or other arrangements.

Concerted international efforts are being made by such organizations as the OECD, the UN "family," and European Community bodies to effect R&D programs adequate to fulfill requirements of industrialized, and basic needs of developing, countries. The programs do not call for their acquisition of patent rights to inventions emanating from the R&D they sponsor or promote. Generally, such programs provide for widespread, unrestricted use of R&D results. These organizations play an important role in fact-finding and dissemination of information, as well as in stimulating development of scientific and technical resources of member countries.

Patent policies related to these organizations' R&D efforts are left to determination by each national government within its own jurisdiction. None of the organizations surveyed by The PTC Research Institute, except Euratom, has its own research laboratories. Also, as previously noted, Euratom is the only known international organization with a definable patent portfolio. To the extent that they become involved in the subject of patents, most international organizations urge member countries to improve their patent systems and to look towards their harmonization, through regional arrangements and/or

the Paris Union Convention. They clearly recognize the need for effective national patent systems that will encourage accumulation of technical knowledge and serve as incentives to innovation.

National policies vary with respect to administration, disposition and use of R&D patent rights. Industrialized countries, however, are generally consistent in insuring that patent rights emanating from their government-financed R&D are made available for use.

Most industrialized countries, unlike the U. S., utilize quasi-governmental organizations to handle their R&D programs. Cooperative R&D is also an important activity abroad.

In both the U. S. and Europe, many R&D inventions, including those patented, are not exploited, primarily for two reasons. First, in many industries, firms are unable or unwilling to take the financial risks. Second, many R&D patents are not sufficiently publicized as being available for use. To resolve the problem, several countries, such as the U. K., Japan and Sweden, have established "development corporations" to assist firms, financially and administratively, in utilizing promising inventions. Steps taken by the U. S. government include the Presidential Memorandum of 1963 which sets forth guidelines for establishing title and encouraging availability of R&D inventions in the public interest, with due recognition for private rights. U. S. government agencies also publicize R&D inventions to which they have title or licensing rights. This is done through their own facilities or others such as the Federal Clearinghouse for Scientific and Technical Information (see Chapter IV). Also noteworthy is a study on "Technical Innovation: Its Environment and Management," published in January, 1967 by a U. S. Department of Commerce Panel on Invention and Innovation. The Panel looked into a number of factors affecting development and exploitation of inventions and innovations. It recommended 17 steps that should be taken to assist industry in improving the situation on such matters as venture capital, taxes and regulatory legislation.

Steps which international organizations and national governments prefer to take in stimulating R&D vary from organization to organization and country to country. Some may create merely a general climate for innovation while others may establish more direct incentives. Policy considerations, especially at the national level, take into account the subject of proprietary rights to R&D disclosures, their disposition and control; also incentives in patent systems to innovate, as well as to diffuse and exploit innovations. This is not to underplay the role of government financing, development companies, and other national

and international aids available to encourage R&D. It is merely to emphasize the importance of adequate patent legislation in this context.

The PTC Research Institute is impressed with the growing attention being directed to R&D and related patent policies throughout the world. Its proposals are presented to the OAS as a contribution to the development of an R&D patent policy fully consistent with OAS objectives.

## Specific Proposals for OAS Consideration

We come to the question—how relevant are the diverse policies described earlier to the research and development program being planned by OAS? The Institute considered that a constructive answer required two related approaches. First, all of the described policies should be analyzed with an emphasis on their value in encouraging the transfer of technology. Second, each should be examined to make sure it was appropriate to the OAS research program. That program has four salient features:

(1) It will emphasize applied research;
(2) OAS role will promote useful research activities through identifying suitable research areas and marshaling research personnel and facilities;
(3) OAS will seek multinational participation;
(4) OAS will provide some of the needed financial support.

From its studies the Institute has prepared five alternative approaches for OAS consideration. Each reflects a different degree of involvement by OAS in the policy and administration determinations.

### *Proposals*

(A) EURATOM TYPE. OAS plays major role in acquisition and disposition of patent rights. In order to achieve these objectives OAS must have a patent management center. Such a center could directly procure patents and handle their licensing on a commercial basis or it could let the contractor apply for patents in his name subject to the grant of a royalty-free license with sublicensing rights to OAS. If contractor waives this right, OAS has right to file, with contractor, in turn, receiving a royalty-free nonexclusive license with sublicensing rights. Of course, the employees at the patent management center

need not be OAS staff. The activities could be monitored by OAS through a contract with a private or quasi-governmental organization expert in patent management activities. Examples in the United States are Battelle Memorial Institute and Research Corporation, and in the United Kingdom, the National Research and Development Corporation. Also cooperative R&D agreements could be entered into by OAS with national governments outside the OAS, each party obtaining patent rights in its own jurisdiction, with the other receiving a nonexclusive, royalty-free license.

*Choices Under A*:

(1) The OAS, itself, assumes title and patent rights to all such disclosures, with full licensing responsibility.
   (a) *Advantages*—OAS is in overall position to control diffusion and exploitation of all R&D disclosures in broad Latin American public interest.
   (b) *Disadvantages*—Involves difficult administrative, financial burdens in acquiring patent rights and seeing that disclosures are properly protected and exploited; poses confrontation problems with national policies on licensing and use of technology, and regulation of industries; lack of technical expertise at OAS level in wide framework of industries poses problem of properly carrying out regional exploitation R&D results on commercial basis; (only other international agency operating as such [Euratom] doing so in very specialized field).

(2) Research performer is given title and patent ownership rights to all disclosures under his R&D contract.
   (a) *Advantages*—Innovations are left in hands of enterprises technically competent to acquire, manage and exploit patent rights thereon; disclosures are more closely geared into pertinent local industries; prestige of research institute, with title to OAS-sponsored R&D results, facilitates acceptance of such results by local commercial and public enterprises.
   (b) *Disadvantages*—Private, not OAS, considerations become dominant in exploiting R&D results; possible lack of enthusiasm by contractor for broad commercial exploitation of R&D results; not conducive to exploitation regional basis, only in contractor's country.

(B) U. S. GOVERNMENT-TYPE MODEL. OAS might follow

the general principles which govern the procurement and administration of patents by agencies of the U. S. government. Following this analogy, the several member states of OAS would be thought of as structurally similar to specific U. S. government departments—i.e., NASA, HEW and Agriculture. OAS headquarters would function in setting general policies and monitoring activities for the R&D related programs which OAS finances or sponsors. Here OAS would set forth policy guidelines to be followed by research performers in its member states. In addition, all such patents and decisions relative to such patents would be reported to OAS. This would provide information on the availability of inventions for licensing and it would permit OAS to follow up on commercial applications resulting from these inventions. In all cases the national government or the research performer in the country will obtain either full title to the patent or a nonexclusive license with sublicensing rights.

(a) *Advantages*—OAS establishes the overall plan, retains an advisory function and maintains a record of patent progress under its R&D programs; R&D results brought closer to problem areas they are designed to benefit; results placed in hands of entities fully aware of economic and commercial needs of countries; diffusion of OAS costs in R&D patenting and exploitation possible due to handling on decentralized governmental basis; local patenting and licensing of government-owned inventions facilitated.

(b) *Disadvantages*—OAS loses most of its centralized control and "watchdog" advantages of R&D results; national programs governing use of OAS R&D project results may contravene OAS purposes.

(C) OECD TYPE. OAS might limit its role to acting as a catalyst for individual government activities in the field of patents. Here OAS might encourage the development of sound national patent systems on the theory that a strong and valuable patent is unlikely to exist in a country with a weak or ineffective patent system. They could also provide a forum for national discussions of the role of patents in transfer of technology. However, they would not directly involve themselves in the administration of patents such as is contemplated under alternatives (A) and (B).

(a) *Advantages*—R&D related activities relatively inexpensive and easy to carry out.

(b) *Disadvantages*—No control or reporting of research findings and no specific information on the effectiveness of the programs.

(D) CASE-BY-CASE APPROACH. All OAS sponsored projects are handled on a case-by-case basis. In each instance OAS will decide which alternatives or combinations thereof will be applied. OAS determines whether it, the research performer, or a national government or a government-affiliated organization, will have complete title to the inventions and technology. This alternative recognizes that the prior experience which is followed in alternatives (A), (B) and (C) may not be fully applicable to the contemplated OAS projects. Thus as successive inventions arise, and are brought to OAS' attention, it will make decisions based on the specific facts in each case and in the public interest. It would be expected that the body of decisions made by OAS would provide the foundations for a policy perhaps two years in the future. This approach would provide an OAS policy directly tailored to its needs but built on other national and international experience.

(a) *Advantages*—Provides basis for accumulating body of experience under various alternatives for firming up long range program; enables pragmatic approach to diverse national and industry problems; more immediately adaptable to basic public interest needs.

(b) *Disadvantages*—Creates uncertainties for potential R&D contractors; makes OAS vulnerable to complaints of inconsistencies in decisions; militates against long range national government planning to implement OAS R&D policies.

(E) DEDICATION. All results of OAS sponsored R&D are immediately published or dedicated to the public in a manner designed to preclude acquisition thereon of patent or other proprietary rights.

(a) *Advantages*—Provides inexpensive, least burdensome method of making R&D results available to public and precluding ownership thereof by any party; does not involve governments in licensing programs or other resultant obligations subjecting them to interference with commercial activities.

(b) *Disadvantages*—Causes loss of incentive for firms to participate in R&D; deprives such firms of any proprietary interests in results of R&D which they might license or exploit to advantage; militates against strengthening of national patent procedures.

## Discussion

If alternatives (A), (B), or (D) are chosen, basic criteria for an

effective R&D patent and licensing program will prompt decisions by the title holder as to commercial attractiveness of the invention and countries where patenting should be undertaken; the effect which patenting of an invention will have in encouraging its commercial exploitation; and the protective capability of patent systems in those countries where patenting and exploitation are desired.

Proper administration of an R&D patent program will also prompt decisions on how widespread a patent portfolio is desirable, based on filing and maintenance costs, and other administrative requirements in various countries. Other considerations are whether the patent is to be licensed exclusively or nonexclusively, on a reasonable royalty or non-royalty basis; and the impact of national working requirements.

Consideration of patent procurement and licensing in other nations than those represented in The Organization of American States should not be neglected. Inventions which appear commercially attractive in Latin America may become items of export to other parts of the world or may be eligible for manufacture overseas under licensing arrangements. Of course such patent protection must be selective in order to avoid excessive costs. In this connection attention is invited to guidelines found in an examination of the costs of obtaining patent protection in several countries made by a Swiss patent attorney named Thomas Ritscher and reported in *IDEA,* Volume 13, Number 1, Spring 1969. This study lists the countries in which most inventors seek protection and indicates average costs in relation to the scope of coverage desired.

In the first proposal (EURATOM type) reference is made to the possibility of entering into cooperative agreements with national governments outside the OAS. This opportunity for expanding participation exists under (A), (B), or (D) of the alternatives outlined above. If OAS should decide to pursue it in appropriate instances attention to the procurement and exploitation of patents in the cooperating countries should be a part of the agreements.

If OAS decides that it will retain title and patent rights to the R&D disclosures, presumably it will develop a policy for their licensing and use. If, on the other hand, OAS decides to turn such title and rights over to a national government or the research contractor (under [A], [B], or [D]), it must determine:

(1) Whether it wants to retain a license for use at its discretion for governmental purposes, or

(2) What other voice, if any, it may wish to have in the licensing policy of that title holder.

U .S. government agencies which seek to encourage the adoption of

their discoveries face a problem which OAS should consider carefully. Historically the patent policy of the U. S. government has favored nonexclusive, royalty-free licensing of inventions to which it has title. This policy has the advantage that all taxpayers are treated equally since all can obtain a license on equal terms. However, it has a major practical disadvantage since an idea equally available to all is not particularly attractive to the few with the imagination, skills, and resources to move it from an inventive concept to a commercially successful product or process. The men who "pioneer," who take risks involved in introducing a new and experimental idea, need and deserve the protection of an exclusive license at least for a period of time. Therefore OAS may want to consider the granting of exclusive licenses where (1) the licensee indicates that he is prepared to develop and introduce the idea in a reasonable time and (2) where he plans to produce at a reasonable volume in relation to anticipated markets. It should be recalled that existing laws in several OAS member countries require the payment of maintenance fees to keep a patent alive and also the granting of licenses where the patent owner or the exclusive licensee's own efforts do not adequately serve the market.

In the final analysis, the choice of any of the above alternatives will be governed by requirements calculated by OAS to establish conditions that will encourage industry, university and government participation in R&D, while at the same time insuring that results are properly utilized in the public interest.

## APPENDIX A

### Inter-Governmental Organizations in Scientific Activities

The precise number of such organizations is difficult to determine since some have specific programs in a scientific field (such as Euratom), while others, not themselves research bodies, sponsor research in special fields (such as World Health Organization), and still others have general activities some of which include R&D promotion (such as OECD). A number of lists of such organizations have been published, such as that in the *Yearbook of International Organizations,* published biannually by the Union of International Associations, Brussels, and in the U.S. Library of Congress compilation *International Scientific Organizations* (Washington, 1962). The PTC Research Institute believes that a list prepared by OECD (published in *International Scientific Organizations* [Paris: 1965], pp. 273-4 [*op. cit.*]), taken from the above-mentioned publications but altered and classified according to major scientific sectors, best serves the purposes of this report. Slightly

modified for updating, and for elimination of certain organizations later determined to have little activity in scientific activities, the list follows:

I—Multi-Purpose Organizations

Caribbean Organization
Central Treaty Organization (CENTO)
The Colombo Plan Council for Co-operative Economic Development in South East Asia
Council for Mutual Economic Aid (CMEA)
Organization for Economic Co-operation and Development (OECD)
Organization of American States (OAS)
South-East Asia Treaty Organization (SEATO)
United Nations (UN)
United Nations Educational, Scientific, and Cultural Organization (UNESCO)
Council of Europe

II—Science and Technology

British Commonwealth Scientific Office (North America) (BSCO) (NA)
Commonwealth Advisory Aeronautical Research Council (CAARC)
The European Atomic Energy Community (EURATOM)
European Coal and Steel Community (ECSC)
European Organization for Nuclear Research (CERN)
International Atomic Energy Agency (IAEA)
International Bureau of Weights and Measures (BIPM)
International Computation Centre (ICC)
International Council for the Exploration of the Sea (ICES)
International Hydrographic Bureau (IHB)
International Institute of Refrigeration (IIR)
International Organization of Legal Metrology
Joint Institute for Nuclear Research (DUBNA)
World Meteorological Organization (WMO)

III—Medical Sciences

International Committee of Military Medicine and Pharmacy (ICMMP)
Pan American Health Organization (PAHO)
World Health Organization (WHO)

IV—Social Sciences

Pan American Institute of Geography and History (PAIGH)

V—Agriculture and Food

Commonwealth Agricultural Bureaux (CAB)
European and Mediterranean Plant Protection Organization (EPPO)
European Commission for the Control of Foot-and-Mouth Disease
Food and Agriculture Organization of the United Nations (FAO)
Institute of Nutrition of Central America and Panama (INCAP)
Inter-American Institute of Agricultural Sciences (IAIAS)
Inter-American Tropical Tuna Commission
International Commission for the Northwest Atlantic Fisheries
International Commission of Agricultural Industries
International Office of Epizootics
International Regional Organization of Farm Sanitation
International Sericultural Commission (ISC)

Permanent Inter-American Anti-Locust Committee
Permanent International Bureau of Analytical Chemistry of Human and Animal Food (PIBAC)

VI—Transport and Communications

Danube Commission
European Conference of Ministers of Transport (ECMT)
Inter-governmental Maritime Consultative Organization (IMCO)
International Civil Aviation Organization (ICAO)
International Conference for Promoting Technical Uniformity on Railways
International Telecommunication Union (ITU)
Organization for the Collaboration of Railways (OSSHD)

VII—Miscellaneous

North Pacific Fur Seal Commission
Permanent Commission of the International Fisheries Convention, 1946

## APPENDIX B

### Euratom Research and Development Patent Policies and Procedures

At its inception in 1958 Euratom was faced with a series of licensing and sublicensing problems in connection with its task of insuring the proper flow of information to the members of the Community. After a series of conferences with industries of the Community, Euratom announced a set of fundamental principles to be adopted in its policy on patents in January 1961. The *Fourth General Report* on its activities outlines these principles as follows:

> Any party carrying out research under contract to the (Euratom) Commission has full title, if he so desires, to any patents arising out of such research. In cases, however, where he does not file a patent, the Commission is at liberty to do so instead.
>
> For the purpose of meeting Commission requirements, the Community is entitled to a royalty-free license covering all work, orders, or research undertaken by third parties on behalf of the Commission.
>
> The Commission also has the right to grant sub-licenses insofar as this does not clash with the terms of the Euratom Treaty. These sub-licenses may involve nuclear applications only and may only be granted to Member States or individuals or enterprises within the Community.
>
> The Commission does not award the sub-license without first consulting the contractor and hearing the opinion of the applicant. The Commission's decisions may be challenged before the Court of Justice.
>
> Before coming to any financial arrangements, it is laid down that the Commission should discuss the matter with the contractor (the owner of the patent) and the applicant. In both cases, i.e., the granting of sub-licenses or the assessment of the financial consideration, provision is made for a conciliation procedure in the event of dispute before appeal is made to the Court of Justice.

> A final stipulation is that contractors must inform the Commission of any intent to grant a license in the nuclear field.

These principles left some doubt as to basic patents. The problem was to prevent the contractor from invoking a basic patent acquired outside a Commission contract. Such a patent could prevent utilization of the information and patents arising out of the contract. The basic patent could bar other members of the Community from use of the product of Community-financed research on improvements of the basic patent. In the *Sixth General Report* on the Activities of the Community (1961) the following policy was set forth:

> It is henceforth laid down that the Commission and the contract-holder shall determine, prior to signing the contract, whether basic patents relating to a technical field which has been defined or has been designated by name require undertakings to be given by the contract-holder.
>
> These undertakings will include an obligation to supply and, if called for, an obligation to grant licenses on commercial conditions. The utilization of knowledge and patents arising from the contract will therefore no longer encounter any bar arising from the basic patents.

Euratom and the holders of its contracts have filed a number of first patent applications[a] under this policy:

| *Year* | *Applications filed* |
|---|---|
| 1960 | 22 |
| 1961 | 67 |
| 1962 | 109 |
| 1963 | 153 |
| 1964 | 181 |
| 1965 | 182 |
| 1966 | 190 |

Euratom has also pursued patents in countries outside of the Community. The records of the Assignment Branch of the U. S. Patent Office show the following activity on the part of Euratom.

| *Year* | *Applications assigned to Euratom* | *Patents granted* |
|---|---|---|
| 1960 | 2 | 0 |
| 1961 | 0 | 1 |
| 1962 | 4 | 0 |
| 1963 | 21 | 0 |
| 1964 | 16 | 0 |
| 1965* | 23 | 4 |
| 1966 | 20 | 9 |
| 1967 | 5 | 22 |
| 1968 | — | 25 |
| 1969 | — | 10 |

*Applications filed but not issued do not appear in the public assignment records after September 27, 1965

[a] I.e., first filings to establish one year right of priority under the Paris Union Convention.

The first royalties under Euratom's licensing program were received in 1965.

| *Year* | *Licenses granted* |
|---|---|
| 1964 | 1 |
| 1965 | 7 |
| 1966 | 5 |

The apparently slow progress in the licensing program seems to have been due to the principle of nonexclusivity laid down in the treaty and to the lag in utilization of these patents in construction of prototype reactors.

## APPENDIX C

Appendix C of this report as submitted to OAS consisted of the Presidential Memorandum and Statement of Government Patent Policy issued October 10, 1963. Since the Memorandum has been published elsewhere and is readily available, we are not reprinting it here. For the Memorandum text, see Federal Register, Vol. 28, No. 200, October 12, 1963.

## APPENDIX D

### Description of Activities of Selected Independent U.S. Organizations in Research and Patent Management

A—*Stanford Research Institute (SRI)*

SRI has over 3000 employees engaged in about 800 research projects in various branches of engineering, the physical and life sciences, and in economics and management sciences. Projects are handled for clients in the U. S. and about 50 other countries. Although it is affiliated with Stanford University, SRI operates separately with its own staff and facilities.

SRI's home offices and laboratories are in California. Principal overseas operating bases are in Zurich, Stockholm, Paris, London, and Bangkok. SRI representatives are located in Lisbon and Milan, and temporary project offices are scattered around the world.

The Institute is a non-profit organization and has no endowment. Operating income is primarily from research contracts and grants. Under an Associates Plan, companies and individuals also contribute funds to aid in its expansion. Some 250 research programs are active within the Institute's facilities at any one time. Each year SRI services several hundred client companies in identifying obstacles to successful growth and in developing methods for improvement of operations. The research approach may entail, among other things, factors involving industrial processes and products. Within its international framework, SRI may also operate in cooperation with local research organizations. For example, close affiliations exist

with research institutes in Japan, France, Philippines, and Indonesia. Many projects undertaken for industrial companies, especially in the Scandinavian countries, the United Kindom and Japan, are concerned with applications of scientific techniques relative to the companies' operations.

SRI has an International Membership Plan under which companies and individuals throughout the world can become International Members for an annual fee, and thus maintain a continuing affiliation with the Institute. Members may attend the various SRI-sponsored conferences, receive SRI publications and discuss matters of emerging scientific technical, economic and management development with SRI personnel.

Since 1946, SRI has evolved as an important multinational firm doing R&D for both governments and industries. It is continuing to emphasize and expand its international research activities.

B—*Battelle Memorial Institute*

The Institute was established in 1923 as a nonprofit corporation (i.e., any income is to be used exclusively for furthering the purposes of the Institute) operated by a self-perpetuating Board. Most of its research is conducted under contract on behalf of industrial firms or governmental agencies which provide the financial support for specific studies.

The Columbus, Ohio laboratories have a staff of more than 2700 scientists, engineers, economists and supporting personnel. With other major research centers at Frankfurt, Germany; Geneva, Switzerland; and Richland, Washington (U.S.), the total Institute staff exceeds 6000.

Battelle's operations were based entirely in the U. S. until soon after the end of World War II. Initially, steps were taken to register a branch of the Institute in Switzerland. In Germany, it received special inducements to establish a subsidiary. These included land grant for a laboratory site and the right to use blocked marks for its projects. At the beginning of its foreign contract research operations, Battelle was primarily oriented towards the physical and engineering sciences. Industrial economics activities were added in the 1950's and since 1960 much of its capability has been directed towards problems of developing countries, mainly in the field of industrial planning and engineering. Its industrial, mechanical and agricultural engineers, sociologists, economists and geologists are very active in this work.

Battelle's new research center, in the State of Washington (U.S.), taken over for operations in 1965, was formerly an Atomic Energy Commission facility. While continuing to give attention to peaceful applications of atomic energy, Battelle is expanding research in this facility to other areas of science and technology, from chemistry and metallurgy to the earth and life sciences.

Battelle also has a subsidiary in the U. K., although no laboratories there. Contracts obtained in the U. K. are carried out by Battelle laboratories in the above locations.

C—*Arthur D. Little, Inc. (ADL)*

ADL is an independent consulting firm, headquartered in Cambridge, Massachusetts, with a staff of more than 1500. It deals in both new technological research and in management techniques. There is also an Invention Management Group which evaluates inventions submitted from outside inventors and assumes responsibility for the commercial realization of those inventions appearing to have good

potential.[a] Several alternative arrangements are possible between ADL and the respective owners, but ADL usually acquires the exclusive right to license commercially attractive inventions.

ADL has contractual relations with companies and universities providing them with assistance in the management of new technology. In addition to commercializing new ideas and inventions, companies frequently ask ADL to develop the potential offered by projects that have been abandoned or discontinued, or that are peripheral to their principal business. Moreover, companies and, especially, universities not in a position to seek foreign licensees, ask ADL to undertake this aspect of deriving a financial benefit from new products and processes. In its agreements with companies and universities, ADL commits itself to commercialize the inventions to the extent possible. In the course of the agreed-upon time period during which ADL has the exclusive right to license the invention, the invention owner is kept fully informed of ADL's progress. In the event that ADL is unable to find a suitable licensee during this time period, the owner may terminate the agreement. Upon termination, all improvements, models, market data, and other information that have been developed by ADL under the agreement are turned over to the invention owner at no obligation.

ADL's responsibility for commercialization of an invention includes administering the terms and conditions of the license agreement and monitoring the reporting where necessary. In some instances, the licensee retains ADL to assist in getting the development into production. In any event, ADL is continually alert to economic, market, or technological changes which may necessitate the renegotiation of licenses.

### D—*Research Corporation*

This foundation, headquartered in New York City, was created in 1912 by Frederick Gardner Cottrell. Its endowment consisted of patents on the Cottrell system of industrial gas cleaning donated by the founder and his associates. The Cottrell endowment, now largely embodied in Research-Cottrell, Inc., a subsidiary, is still the principal asset of the foundation and an important source of income for its grants programs and patent programs. Major support for these programs also comes from royalties on patents which have been assigned to the foundation by individual inventors and by educational and scientific institutions.

The foundation's basic fields of interest are the natural sciences and public health nutrition. Institutional grants to liberal arts colleges are designed to help strengthen research-oriented science departments which have undertaken programs for advancement towards excellence.

Through its patent assistance programs for educational and scientific institutions, the foundation assists in bringing inventions into public use and turning the proceeds to philanthropic purposes. Patent services contributed without charge to colleges and universities include evaluation of faculty and staff inventions, applying for and obtaining patents, and licensing them to industry. Royalty income from these inventions is apportioned among the inventor, his institution and Research Corporation, in accordance with the institution's patent policy. Patent assistance services are also available to individual inventors who wish to support the purposes of the foundation by donating patents on which they may receive a share of the royalties.

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[a] It is this phase of ADL's operations that is being discussed in detail in this section of The PTC Research Institute's Report, as most pertinent to OAS' interests.

Institutions availing themselves of the foundation's patent services include universities, medical schools, health agencies, research foundations and other non-profit organizations. Those receiving support in the form of grants include colleges, universities, scientific institutes and international public health organizations.

The patent assistance programs of Research Corporation are separate and distinct from its grants programs. The foundation expressly disclaims, at the time a grant is made, any rights in patentable ideas that may result from the research supported. Nor does the existence of a patent agreement with an institution have any bearing whatsoever on the foundation's selection of grantees. A grantee's institution, however, may at its own option submit his or any other staff inventions to Research Corporation for evaluation.

Some 200 institutions presently have patent agreements with Research Corporation through which they may receive at no cost such services as evaluation of staff inventions, preparation and prosecution of patent applications, development of inventions through industrial licensing, and allocation of royalties in accordance with the institution's patent policy. The agreements generally provide for sharing royalty income among the inventor, his institution and Research Corporation. Various divisions of income are possible, but the one most often used is 15% to the inventor, with the remainder to be divided equally between the institution and the foundation.

At the end of the 1967 fiscal year, 195 colleges, universities, and other non-profit institutions had agreements with Research Corporation through which they are provided patent assistance services by the foundation.

### E—*American Research and Development Corporation (ARD)*

ARD is a publicly owned venture capital investment company, formed in Boston, Massachusetts, in 1946, to invest in equities and counsel the operations of companies of a small or medium size. ARD is primarily interested in those companies having products or technology which may develop into substantial industries. The ARD staff does not conduct technical research for the companies in which it invests.

In addition to supplying capital, ARD makes available to companies the technical and administrative experience of its management. There is no single industry or group of industries into which ARD's funds are directed. Many of the investments are in technically based companies, but funds also have been invested in such diverse fields as publishing, entertainment, and consulting and data processing services. Investment opportunities in any field of endeavor which is felt to be constructive and to possess exceptional possibilities for growth are considered.

ARD seeks an equity position or its equivalent in all ventures. It provides long-term capital, incurring the risks and realizing the gains that accrue from such a policy. ARD has no specific formula for financing projects. Each investment opportunity is considered separately, and the form of participation is designed to meet the individual requirements of the situation.

The amount of capital which ARD invests in a single situation is flexible and is determined by the client's requirements. The participation by the management of the portfolio company in the ownership of the company is considered to be of great importance to its growth. In some cases, ARD may seek the support of other financial groups, with the agreement of all parties, because the association of additional and constructive investors is often considered to be in the best interests of a company's development.

ARD does not seek control in the companies in which it invests; however, there are situations where the amount of capital required and the degree of risk involved may necessitate that ARD have a controlling interest during the company's early

years. Even in such cases, ARD does not manage companies. ARD seeks to invest only in companies where able management seems assured.

At ARD, the patent position of a company is an important but not a dominant factor in formulating an investment decision. Most of its investments are in companies whose business revolves around patented technology. The ARD patent policy is that of obtaining and using patents to return a profit to the ARD shareholders and to the other equity holders of the companies in which ARD has invested.

F—*Industrial Research Institute (IRI)*

IRI, headquartered in New York City, is a nonprofit organization whose members are some 220 industrial companies with technical research departments. These member companies are responsible for the conduct and management of a large portion of all industrial research and development activity being carried on in the U.S.

The purposes of IRI are: (1) to promote, through the cooperative efforts of its members, improved, economical, and effective techniques of organization, administration, and operation of industrial research; (2) to develop and disseminate information as to the organization, administration, and operation of industrial research; (3) to stimulate and develop an understanding of research as a force in economic, industrial, and social activities; and (4) to promote high standards in the field of industrial research.

# APPENDIX E

## TABLE I

R&D EXPENDITURES IN SELECTED INDUSTRIALIZED COUNTRIES AND RELATION TO GROSS NATIONAL PRODUCT (BILLIONS OF U.S. DOLLARS)

| Country | Year of Data | Total R&D Expenditure[a] | GNP | Percent of R&D to GNP |
|---|---|---|---|---|
| United States | 1968[b] | 25.0 | 861 | 2.9 |
| | 1967[b] | 23.8 | 790 | 3.0 |
| | 1966[b] | 22.2 | 748 | 3.0 |
| | 1965[b] | 20.5 | 681 | 3.0 |
| | 1964 | 19.1 | 632 | 3.0 |
| | 1963 | 17.4 | 591 | 2.9 |
| France | 1963 | 1.3 | 80 | 1.63 |
| Germany | 1964 | 1.4 | 104 | 1.35 |
| Belgium | 1963 | 0.14 | 13 | 1.8 |
| United Kingdom | 1964–65 | 2.2 | 93 | 2.36 |
| Japan | 1963 | 0.89 | 62 | 1.43 |
| | 1967 | 1.68 | 120 | 1.40 |

Sources: *U.S. Data*—U.S. National Science Foundation, *National Patterns of R&D Resources, 1953–68* (NSF 67–7), (Washington, D. C.: G.P.O.); U.S. Department of Commerce, "Survey of Current Business" (Monthly). *Foreign Data*—OECD publication, *The Overall Level & Structure of R&D Efforts in OECD Member Countries* (Paris: 1967), *op. cit.*; International Monetary Fund, *International Financial Statistics* (Nov. 1965); Japanese Government, *White Paper on Science and Technology* (Nov. 1969).

[a] Government and private originated funds.

[b] Published as estimates by National Science Foundation; revised figures not yet published.

TABLE II

R&D MANPOWER INPUTS (SCIENTISTS, ENGINEERS, AND TECHNICIANS) IN RELATION TO TOTAL POPULATION

| Country | Year of Data | R&D Manpower (Total Number of S, E and Ts) | Total Population (millions) | Total R&D Manpower per 10,000 Population |
|---|---|---|---|---|
| United States | 1963–64[a] | 700,000 | 191 | 37 |
| France | 1963 | 86,000 | 48 | 18 |
| Germany | 1964 | 105,000 | 58 | 18 |
| United Kingdom | 1964–65 | 160,000 | 54 | 30 |
| Japan | 1963 | 187,000 | 96 | 19 |
| Belgium | 1963 | 16,000 | 10 | 16 |
| Canada | 1963 | 24,000 | 19 | 13 |
| Sweden | 1964 | 17,000 | 7 | 24 |
| Netherlands | 1964 | 31,000 | 11 | 28 |
| Italy | 1963 | 30,000 | 51 | 6 |

Sources: OECD publication, *The Overall Level and Structure of R&D Efforts in OECD Countries*, (*op. cit.*) International Monetary Fund, *International Financial Statistics*, (Nov. 1965).

[a] Latest figures published by National Science Foundation (*National Patterns of R&D Resources, 1953–68, op. cit.*) show 503,600 scientists and engineers employed in R&D in 1965; latest figure in table above includes "element of OECD estimation for technicians," per information in OECD source cited above.

TABLE III

U.S. FEDERAL GOVERNMENT OBLIGATIONS AND EXPENDITURES (R&D), (BILLIONS OF DOLLARS), FISCAL YEARS 1959–69

| Fiscal Years | Total Budget Expenditures | R&D Expenditures | | |
|---|---|---|---|---|
| | | Obligations | Expenditures | Expenditures as Percent of Budget |
| 1959 | 80.3 | 7.1 | 5.8 | 7.2 |
| 1960 | 76.5 | 8.1 | 7.7 | 10.1 |
| 1961 | 81.5 | 9.6 | 9.3 | 11.4 |
| 1962 | 87.8 | 11.1 | 10.4 | 11.8 |
| 1963 | 92.6 | 13.7 | 11.99 | 12.9 |
| 1964 | 97.7 | 15.3 | 14.7 | 15.0 |
| 1965 | 96.5 | 15.7 | 14.9 | 15.4 |
| 1966 | 106.98 | 16.2 | 16.0 | 15.0 |
| 1967 | 125.7 | 17.1 | 16.8 | 13.4 |
| 1968[a] | 137.1 | 16.7 | 16.6 | 12.1 |
| 1969[a] | 147.4 | 18.1 | 17.6 | 12.0 |

Source: National Science Foundation, *Federal Funds for Research and Development, and Other Scientific Activities, Fiscal Years 1967, 1968 and 1969* (NSF) 68–27, *op. cit.*

[a] Estimated figures for these years as published by National Science Foundation, no later figures yet published by it.

TABLE IV

U.S. Federal Government Expenditures for R&D, by Agency, Fiscal Years 1959–69 (Billions of Dollars)

| Agency | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968[a] | 1969[a] | 1969 Percent of Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total, All Agencies— | 5.8 | 7.7 | 9.3 | 10.4 | 11.99 | 14.7 | 14.9 | 16.0 | 16.8 | 16.6 | 17.6 | 100 |
| Cabinet Departments: | | | | | | | | | | | | |
| Agriculture | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.21 | 0.24 | 0.27 | 0.29 | 0.3 | 1.7 |
| Commerce | 0.03 | 0.03 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.07 | 0.08 | 0.09 | 0.07 | 0.4 |
| Defense | 4.2 | 5.6 | 6.6 | 6.8 | 6.8 | 7.5 | 6.7 | 6.7 | 7.7 | 7.7 | 8.3 | 47.3 |
| HEW | 0.25 | 0.32 | 0.37 | 0.51 | 0.63 | 0.79 | 0.74 | 0.88 | 1.1 | 1.2 | 1.3 | 7.4 |
| Interior | 0.07 | 0.07 | 0.08 | 0.09 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 1.7 |
| Transportation | — | — | — | — | — | — | — | 0.2 | 0.2 | 0.2 | 0.5 | 2.7 |
| Other Agencies: | | | | | | | | | | | | |
| AEC | 0.88 | 0.99 | 1.1 | 1.3 | 1.3 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 9.7 |
| FAA | 0.03 | 0.04 | 0.05 | 0.05 | 0.07 | 0.07 | 0.1 | — | — | — | — | — |
| NASA | 0.15 | 0.4 | 0.7 | 1.3 | 2.5 | 4.2 | 5.1 | 5.9 | 5.4 | 4.8 | 4.6 | 26.1 |
| NSF | 0.05 | 0.06 | 0.08 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 1.7 |
| Veterans Administration | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.04 | 0.2 |
| All Others | 0.02 | 0.03 | 0.02 | 0.03 | 0.04 | 0.04 | 0.06 | 0.1 | 0.1 | 0.1 | 0.19 | 1.1 |
| Position of Agencies— | | | | | | | | | | | | |
| 1st 3 (DOD, AEC, NASA) account for: | | | | | | | | | | | | 83.1 |
| 1st 5 (plus HEW & Transportation) account for: | | | | | | | | | | | | 93.2 |
| 1st 8 (plus Agriculture, Interior, NSF) account for: | | | | | | | | | | | | 98.3 |

Source: National Science Foundation (NSF 68–27), *op. cit.*

[a] Estimates as published by National Science Foundation, no later published figures.

TABLE V

SOURCES OF U.S. R&D FUNDS BY PRIVATE SECTOR, 1959–69
(MILLIONS OF DOLLARS)

| Year | Total | Industry | Universities & Colleges | Other Nonprofit Institutions |
|---|---|---|---|---|
| 1959 | 4485 | 4055 | 290 | 140 |
| 1960 | 4990 | 4510 | 330 | 150 |
| 1961 | 5285 | 4750 | 370 | 165 |
| 1962 | 5725 | 5115 | 420 | 190 |
| 1963 | 6130 | 5445 | 490 | 195 |
| 1964 | 6650 | 5880 | 560 | 210 |
| 1965[a] | 7400 | 6530 | 640 | 230 |
| 1966[a] | 8150 | 7210 | 700 | 240 |
| 1967[a] | 8870 | 7870 | 750 | 250 |
| 1968[a] | 9440 | 8330 | 840 | 270 |

Source: National Science Foundation, *National Patterns of R and D Resources, 1953–68* (NSF 67–7), (Washington, D. C.: G.P.O.).

[a] Estimates as published by NSF; no later figures yet published.

TABLE VI

R&D PATENTING BY U.S. GOVERNMENT AGENCIES, 1966

| | HEW | AEC | NASA | DOD | Others[a] | Total |
|---|---|---|---|---|---|---|
| I. Invention Disclosures to U.S. Government— | | | | | | |
| Total Reported | 313 | 1271 | 3667 | 6877 | 672 | 12800 |
| 1. By Government Employees | 19 | 11 | 360 | 2110 | 431 | 2931 |
| 2. By Contractors | 294 | 1260 | 3307 | 4767 | 241 | 9869 |
| II. Patents on Employee Invention Disclosures— | | | | | | |
| 1. Total Patent Applications filed by Agency | 3 | 2 | 149 | 914 | 178 | 1246 |
| a. Government has Title | 2 | 2 | 143 | 680 | 175 | 1002 |
| b. Government has License | 1 | 0 | 6 | 235 | 0 | 245 |
| 2. Total Patents Issued | 2 | 2 | 76 | 862 | 104 | 1046 |
| a. U.S. Patents, Total | 2 | 2 | 76 | 784 | 104 | 968 |
| 1. Government has Title | 2 | 2 | 60 | 578 | 95 | 737 |
| 2. Government has License only | 0 | 0 | 16 | 206 | 9 | 231 |
| b. Foreign Patents, Total | 0 | 0 | 0 | 78 | 0 | 78 |
| 3. Invention Disclaimer–no application filed | 13 | 26 | 180 | 1051 | 170 | 1440 |
| 4. Invention Disclosures published–not patented | 10 | 0 | 0 | 0 | 54 | 64 |
| 5. Total Foreign Applications filed | 0 | 11 | 72 | 183 | 0 | 266 |
| III. Patents on Contractor Invention Disclosures— | | | | | | |
| 1. Total U.S. Patent Applications filed[b] | 36 | 305 | 145 | 2163 | 76 | 2725 |
| a. Applications filed by Agency (Government has Title) | 6 | 284 | 82 | 519 | 33 | 924 |
| b. Applications filed by Contractor (Government has License) | 14 | 21 | 63 | 1644 | 35 | 1777 |
| 2. U.S. Patents issued to which Government has Title | 7 | 207 | 31 | 354 | 10 | 609 |
| 3. Invention Disclosures–no applications filed | 281 | 1112 | 2382 | 2382 | 110 | 6267 |
| 4. Invention Disclosures published–not patented | 189 | 22 | 0 | 0 | 11 | 222 |

| | HEW | AEC | NASA | DOD | Others[a] | Total |
|---|---|---|---|---|---|---|
| 5. Total Foreign Patent Applications filed[c] | 22 | 2503 | 36 | 44 | 22 | —[d] |
| a. Government has Title | 2 | 2005 | 30 | 100 | 0 | 1487[e] |
| b. Government has License | 18 | 498 | 14[e] | 15[f] | 22 | —[d] |
| 6. Total Foreign Patents issued to which Government has Title | 0 | 1541 | 1 | 62 | 0 | 1209[e] |
| IV. Licensing of Government-Owned Patents— | | | | | | |
| 1. U.S. Patents available for Licensing end of Fiscal Year 1966 | 80 | 3681 | 290 | 10658 | 1830 | 16539 |
| 2. Number of above Licensed, end of Fiscal Year 1966 | 17 | 618 | 34 | 227 | 434 | 1330 |
| 3. Number of above Licensed during Fiscal Year 1966 | 3 | 42 | 11 | 29 | 36 | 121 |
| 4. Foreign Patents available for Licensing, end of Fiscal Year 1966 | 0 | 2324 | 3 | 474 | 7 | 2808 |
| 5. Number of above Licensed, end of Fiscal Year 1966 | 0 | 15 | 0 | 0 | 3 | 18 |
| 6. Number of above Licensed during Fiscal Year 1966 | 0 | 0 | 0 | 0 | 0 | 0 |

Source: Federal Council for Science and Technology, "Annual Report on Government Patent Policy, June, 1967."

[a] Includes Central Intelligence Agency, Departments of Agriculture, Treasury, Commerce, and Interior; National Science Foundation, Veterans Administration, Tennessee Valley Authority, and Federal Aviation Agency.

[b] Allocations of rights determinations were not made on all of the applications filed during fiscal year 1966; therefore, totals do not equal subtotals.

[c] Figures are totals for fiscal years 1963–66; reported as such since they seem to be incomplete in source, for 1966. Total picture for 1963–66 may be more meaningful.

[d] No totals shown in source for all years.

[e] Fiscal years 1963–65 only.

[f] Fiscal year 1966 only.

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# Should the U.S. Adopt a Re-examination System?

MARTIN ABRAMSON*

SUMMARY

THE CONCEPT OF "RE-EXAMINATION" as a solution to the problem of patent invalidity is examined. Comparison is made with similar systems operating in European countries and it is concluded that proposed legislation incorporating the "re-examination" concept would not be suitable for U.S. practice.

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## INTRODUCTION

THE MOST COMMON CAUSE of patent invalidity is the citation of art during litigation which was not discovered by the Patent Office during its examination of the case.[1] In an effort to combat the issue of invalid patents, legislation has been introduced in Congress which would permit members of the public to cite prior art, including evidence of public use and sale, to the Patent Office to defeat the grant of the patent.[2] It has been advanced that the proposed legislation would benefit both the patentee and the public by providing the former with a valid patent and the latter with the opportunity to contest the validity of the patent without resorting to expensive and protracted court proceedings.[3] However, the European experience with opposition and cancellation proceedings has amply demonstrated that the mere legislative provision for the mechanics of an opposition system is no guarantee of the degree of public participation which is necessary to make such a system a success. Further, it is possible that the advantages to be realized from such a system may be outweighed by a built-in factor of unfairness towards small business and the independent inventor which any such system must possess. This article discusses the history of the proposed legislation, compares it with similar systems operating in European countries, and identifies the limited successes which may be expected to be realized under it and the areas of failure which must be anticipated.

## HISTORY OF THE LEGISLATION

In 1966, the President's Commission on the Patent System published its report.[4] In an ostensible effort to harmonize our patent system with the other major patent systems of the world, most notably the European systems, the Commission recommended fundamental and widespread revision of our patent laws. In 1967, the Patent Reform Act, based on the Commission's recommendations, was drafted

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[1] P. J. Federico, "Adjudicated Patents 1948-54," *JPOS*, Vol. 38 (1956), pp. 233, 249, reprinted from "American Patent System," Hearings before the Subcommittee on Patents, Trademarks and Copyrights of the Committee on the Judiciary, United States Senate, 84th Cong., First Sess., pp. 176-185.

[2] S.1246 and S.1569, both introduced in 91st Cong., 1st Sess.

[3] Report of the President's Commission on the Patent System (1966), p. 27, comment on Recommendation XI.

[4] Report of the President's Commission on the Patent System (Washington, D.C.: G.P.O. 1966).

and submitted to Congress. During the course of the hearings on this bill it became apparent that the more controversial procedures which had been recommended by the Commission, such as first-to-file, mandatory publication of pending applications, and provision for preliminary applications, could not survive the spirited and almost unanimous opposition of the Patent Bar and the industrial patent community. Section 136 of the Reform Bill, however, which provided for re-examination of pending applications after citation of art by the public, managed to survive the hearings unscathed. Most of those who did not indicate endorsement of the re-examination procedure at least indicated that they could accept such a procedure if adopted.

Out of the fires of the Congressional debate were forged two new patent bills which were introduced to the 91st Congress in 1969.[5] Significantly, neither of the two bills included any of the more controversial provisions which had pervaded the Commission's Report, but both bills did include some sort of provision for the adoption of a re-examination system.

The Dirksen Bill,[6] which had been drafted by the Patent Section of the American Bar Association, provided for a period of one year after the issuance of the patent during which any person could submit pertinent prior art to the Patent Office including evidence of public use or sale or evidence that the invention was "derived" from the person providing the notification. The other bill, which had been drafted by the Senate Subcommittee on Patents, Trademarks and Copyrights,[7] differed from the Dirksen Bill in providing for a re-examination period of from three to six months after the publication of the allowed application instead of after the issue of the patent. As will be developed later, the differences between the two proposed re-examination procedures are not nearly so great as the similarities, particularly when the novel "re-examination" aspect of the proposed legislation is compared with the more conventional "opposition" and "cancellation" type of procedure which is used by the other countries of the world that allow citation of art by the public.

## The Problem Sought to be Solved—Patent Invalidity

A high percentage of the patents which are adjudicated by our federal courts are held to be invalid. From 1948 to 1954 the figures

[5] *Supra* note 2.
[6] S.1569, 91st Cong., 1st Sess., 1969.
[7] S.1246, 91st Cong., 1st Sess., 1969.

reveal that 62.7 percent of the litigated patents were struck down.[8] From 1953 to 1963, 54.7 percent were held invalid.[9] While only less than one percent of the total number of patents issued each year are adjudicated to a final determination,[10] it is difficult to establish that the overall percentage of validity is any different from what the statistics would indicate. Because it is probably true that neither the very strongest nor the very weakest patents are ever contested, it is quite likely that patents which are litigated are representative patents of "average" validity. It is of further interest that in a study of 100 terminated interferences sampled for the presence of motions to dissolve for reason of unpatentability it was found that the motions were successful in approximately 42 percent of the cases in which they were brought.[11] The results of this study lend further strength to the conclusions to be drawn from the litigation statistics.

The most common reason for patent invalidity is the citation of art during litigation which was not considered by the patent examiner before his allowance of the case. In a classic study of 50 patents held invalid in the years 1954-55 it was found by P. J. Federico, Examiner-in-Chief of the Patent Office, that 75 percent of the invalidated patents had new art cited against them during the patent trial.[12] In at least half of the cases the new art was considered to have been solely responsible for the holding of invalidity, whereas in substantially more than half it was considered to have been of primary importance in the determination.[13] Mr. Federico's statistics thus lead to the indefinite but highly significant conclusion that between 37 percent and 75 percent of the patents invalidated by our courts are struck down because of the citation of art which was not considered by the Patent Office.

This existing situation of the issuance of a high proportion of invalid patents is detrimental, in varying degrees, to both the patentee and the public at large. It is detrimental to the patentee because after he has paid his fees to the government, paid his fees to his attorneys

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[8] C. Marshall Dann, "Adjudication of Patents Under the 1952 Act," *The Encyclopedia of Patent Practice and Management,* Robert Calvert (Ed.), (New York: Reinhold Publishing Co., 1964), p. 20.

[9] Richard Dearborn and R. Bradlee Boal, "Adjudications by Circuits and Arts Involved," *Id.*, pp. 22, 24.

[10] *Supra* note 8 at p. 20.

[11] P. J. Federico, "Opposition and Revocation Proceedings in Patent Cases," *JPOS,* Vol. 39 (1957) pp. 325, 347. Reprint of Study No. 4, Subcommittee on Patents, Trademarks and Copyrights, Committee on the Judiciary, U.S. Senate.

[12] *Supra* note 1 at pp. 249.

[13] *Id.* at par. 2.

for the procurement of the patent, and perhaps invested a substantial amount of money in acquiring a manufacturing position in the product protected by the patent, he may fall by the wayside and lose the value of his investment when his patent is litigated to a conclusion of invalidity in an expensive and protracted patent litigation contest. That invalid patents not be issued is particularly important to the small-businessman patentee who may base his entire commercial operation around a single proprietary patented product. As ably stated by Henry J. Cappello, representing the Small Business Association, in testimony before the Senate on the Patent Reform Act of 1967:

> The quality of examination, as well as the speed of examination needs to be improved by the adoption, as soon as feasible, of whatever legislative, fiscal or administrative remedies are indicated to stop the issuance of patents that will not stand the test of litigation. It is almost more of a disservice to the individual inventor and small businessman to issue to him a worthless patent than it is to deny him a patent on a product of marginal commercial value. Admittedly this is a judgment area with many shades of gray but we believe that the scales need to be tilted towards improving the quality of issued patents.[14]

The issuance of invalid patents is harmful to the public because it improperly removes the patented property from the public domain and places the burden of recapturing the property for the public on potential infringers who must do so through the adjudicative process. Unfortunately, however, a potential infringer will frequently prefer to avoid the patented subject matter entirely or to pay consideration to the patentee for a license than to endure the financial and psychological burdens of defending a patent infringement suit. Because of the complexity of the subject matter, the courts' probable inexperience and possible ineptitude in patent matters, and for other reasons, the outcome of patent litigation is always extremely hazardous to predict, and every potential litigant must consider for himself whether the risk of losing such a suit is worth the fruits of victory. For even if the infringer is victorious the largesse afforded by victory must be great enough to offset the high cost of litigation. (35 U.S.C. 285 provides for the award of attorney fees only in exceptional cases.) That only less than two percent of the patents issued each year are sued on is a testament not so much to respect for the presumption of validity of the U.S. patent but rather to many decisions on the part of many potential infringers not to become embroiled in the wars of patent litigation.

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[14] Hearings Before the Subcommittee on Patents, Trademarks and Copyrights of the Committee on the Judiciary, U.S. Senate, 90th Cong., 2nd Session, Part 2, at p. 610.

Besides creating great inequities, the issuance of a high proportion of invalid patents also results in a great waste of time and duplication of effort. Although there are many potential infringers who will be dissuaded from infringing invalid patents because of the prohibitive cost of litigation, the existence of invalid patents is actually responsible for generating much of the litigation which does occur. Theoretically, if all patents issued were valid no one would infringe and therefore there would be no litigation. Further, because it is widely recognized that the examination search performed by the Patent Office frequently does not uncover the most pertinent prior art, there is a propensity among patent owners and potential licensees as well as potential infringers to perform a validity search before a substantial amount of money is committed to a project involving the subject matter of the patent. This validity search substantially re-performs the search performed by the Patent Office besides extending the search to publications, foreign patents and subclasses which the examiner may not have searched. Thus it is seen that the expectation on the part of the public that a patent may be invalid engenders a great deal of extra work and duplication of effort.

## The Proposed Solution—The Concept of Re-Examination

It is to attempt to make an inroad on this important problem of patent invalidity that the proposed legislation has been advanced. It should be noted that the provision of an "opposition" type of system as an approach to the problem of patent invalidity is not new. Opposition proceedings are known in our trademark law and are present in the patent systems of 13 out of the 23 major patent granting countries of the world.[15] Although several executive bodies and legislative advisory agencies have in the past recommended the adoption of an opposition system for the United States,[16] public resistance to such a system has always been strong and legislative efforts directed thereto have usually been thwarted in their incipiency.

The only counterpart to the proposed re-examination system in the structure of our present patent practice is Rule 291 of the Rules of Practice which provides that protests to the grant of a patent will be referred to the examiner having charge of the subject matter "for his

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[15] *Supra* note 11 at p. 327.

[16] Study No. 3 of the Subcommittee on Patents, Trademarks and Copyrights of the Committee on the Judiciary, U.S. Senate, 86th Cong., 2nd Sess. "Expediting Patent Office Procedure—A Legislative History" at p. 87.

information." Because, however, there is ordinarily no way in which potential protesters may become apprised of the subject matter of pending applications, which according to 35 U.S.C. 122 are kept in confidential status, protests to the grant of the patent under Rule 291 are extremely rare. Similarly, Rule 292 provides for the institution of public-use proceedings upon the showing of a prima facie case, but again, absent an interference, there is no way by which potential public-use claimants may become aware of the existence of pending applications. Public-use proceedings number about two or three a year and usually result from information which is disclosed to the adverse claimant during an interference proceeding.

The proposed re-examination system would provide a mechanism whereby the subject matter of either allowed applications or incipient patents, depending on which bill is adopted, would be disclosed to the public for possible challenge. Both the Dirksen Bill, which provides for a citation period of from three to six months after allowance of the case but before issue, and the PTC Subcommittee Bill which provides for a citation period of one year after issue, would afford to the public the opportunity of alerting the Patent Office to pertinent prior art which it may not have considered during its examination of the case. It is important to note that the "re-examination" system contemplated by the proposed legislation differs substantially and significantly from the conventional "opposition" and "cancellation" systems used by many of the European countries. Under the opposition systems, the opposer has a vested right to challenge the grant of the patent on whatever grounds the *opposer* deems to be appropriate. The applicant under such a system is charged with the duty of answering the opposer's arguments even if it is apparent to the Patent Office that such arguments are unmeritorious or even whimsical and were filed only for purposes of delay. Under the re-examination scheme, however, the Patent Office, instead of automatically forwarding the opposer's arguments to the applicant for a reply, is given the job of further rejecting the case in view of the newly cited art when and *if* it considers such a rejection to be appropriate. If the art in the opinion of the examiner is not strong enough to support such a new rejection, then no such rejection is entered and applicant does not have to answer. Thus under a re-examination system the examiner acts as a sort of "censor" of the art which is cited by the public, and the Patent Office, by exercising a degree of control over the proceedings is able to inhibit the filing of unmeritorious claims.

Although in some respects both of the proposed re-examination schemes are significantly more equitable than their European counter-

parts, it is not clear that the adoption of either of the proposed procedures will result in an overall benefit to the U.S. patent system. While predicting the effects of proposed legislation is always a hazarduous task, it is one which must be performed if pending legislation is to be appraised and if relevant parameters are to be identified. In discussing the probable effects of the re-examination systems it will be most instructive to first examine the European opposition systems and observe how they have performed in their respective environments. Against the backdrop of the European experience the effects of the novel re-examination system operating in the unique American patent environment may be more meaningfully ascertained.

## The Foreign Experience

As has been indicated previously, 13 out of the 24 major patent systems in the world have some sort of opposition or cancellation proceedings.[17] It should be properly noted at the outset that a document written by Mr. Federico for the Senate Subcommittee on Patents, Trademarks and Copyrights has been most helpful in a study of both structure of the foreign opposition systems and the results attained under the respective systems.[18]

The structure of the English opposition system is more or less typical of many of the European systems and for this reason will be examined first. In England when an application (complete, as opposed to provisional specification) is ready for allowance, it is laid open for public inspection and oppositions may be lodged against it for a period of three months thereafter.[19] Damages for infringement run from the date of first publication and not from the date of patenting although the right to maintain an infringement suit is contingent upon the issue of a patent. In England only an "interested" party may oppose an application, and "interested" has been interpreted to mean a bona fide interest in the commercial or business sense such as manufacturing or distribution position in the subject matter.[20] A successful challenge by the applicant that the opponent has not established proper opposition status is sufficient to terminate the proceedings. This "interested party" requirement is analogous to oppositions in the U.S. law of

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[17] *Supra* note 15.

[18] *Supra* note 11.

[19] *Supra* note 11 at p. 330.

[20] L. F. W. Knight, "British Patent Office Practice," *JPOS*, Vol. 47 (1965), pp. 16, 29.

trademarks where proceedings are limited to "any person who believes that he will be damaged" by the register of the trademark.[21]

The opposer in English practice may attack the allowed application on all of the grounds which would be available to him as a defendant in a patent litigation suit. He may allege anticipation, prior public use, insufficient disclosure, derivation, or any other acceptable defense. The examiner, upon receipt of a Notice of Opposition does not make a judgment of the new art cited, but rather immediately forwards a copy of the opposition papers to the applicant who has six weeks to file an answer. The decision is made by the Patent Office after the evidence and arguments of both parties are in the record, and is made not by the examiner who originally handled the case but by a group of senior officials of the Patent Office. The total proportion of oppositions filed in England ranges between only 1 and 2 percent of the total number of patents issued.[22] This low use-rate of the opposition procedure may be due to the considerations that (1) in order to contest the application the opposer must show a real commercial interest in the subject matter, (2) in England there is no nonobviousness requirement and so to prevail in an opposition proceeding one must produce what would be a 35 U.S.C. 102 reference in the United States, and (3) in England, from 1950-54 there were only 17 infringement suits filed, which indicates a very small interest on the part of British industry in infringing the patents of others. This would lead to a similarly small number of potential infringers who would be interested in opposing the patent applications of others.

Besides opposition proceedings the laws of Great Britain also provide for revocation or cancellation proceedings through which an opposer can have an issued patent cancelled if he opposes it within a year after the issue date. All of the grounds available in the opposition proceeding are also available in cancellation and the procedure followed is generally the same. The cancellation procedure is used on only about .2 percent of the issued patents in Great Britain and this low use-rate of the cancellation procedure when compared to the rate for the opposition proceeding is representative of countries which have both procedures available.[23]

The German opposition system is similar in many respects to that of Great Britain. Like the British system the application is published before issue and opposers have a period of three months to raise

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[21] Trade-Mark Act of 1946, as amended 1962, Sec. 13, 15 U.S.C.A. 1051 *et seq.* (1946).

[22] *Supra* note 11 at p. 334.

[23] *Supra* note 11 at p. 335.

objections. However, unlike the British system, any member of the public as opposed to only interested parties may contest the grant of the German patent.[24] In cases where the objection is that the applicant "derived" (stole) the invention from someone else only the original inventor may be the opposer. The most common ground for the institution of opposition proceedings in Germany as in most countries is anticipation by prior art not cited by the examiner, with public use being second in frequency of occurrence. As in England the examiner in Germany cannot refuse to institute proceedings merely because the opposer's arguments lack merit. An opposer in Germany can oppose even on the very art cited by the examiner although he usually will not prevail on this ground.[25] As in England the examiner forwards a copy of the Notice of Opposition to the applicant who is called upon to respond and judgment is rendered. The case is decided by the original examiner in conjunction with two higher officials of the Patent Office.

The opposition statistics of the German patent system are highly significant. Approximately 17 percent of the published applications are opposed during a normal period of operation.[26] This is to be contrasted with the less than 2 percent opposition frequency for the English system and the approximately 6 to 8 percent frequency for the Swedish and Dutch opposition systems.[27] Also, in Germany there are approximately 3.2 oppositions filed against each application which is opposed.[28] It is the practice of the German Patent Office to conduct an extremely strict and thorough examination of the patent application with the result that approximately 65 percent of the applications filed go abandoned before publication, leaving only about 35 percent to be laid open to the public for possible opposition proceedings.[29] This is to be contrasted with the United States where approximately 75 percent of the applications filed issue as patents. Notwithstanding the strict examination by the German Patent Office, opposition proceedings are found to be successful in completely preventing the issue of the patent in approximately 42 percent of the cases opposed and are

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[24] Rudolf Busse, "Procedure and Practice in the German Patent Office," *JPOS*, Vol. 38 (1956) pp. 683, 688.

[25] Wilhem Reichel and Stephen H. Frishauf, "Opposition Proceedings in the German Patent Office in Light of the Sixth Transfer Law Effective July, 1961," *JPOS*, Vol. 44 (1962), pp. 53, 57.

[26] *Supra* note 11 at p. 340.

[27] *Supra* note 11 at pp. 334, 344, 345.

[28] *Supra* note 11 at p. 340.

[29] *Id.* at par. 3.

found to be successful in eliminating broad claims in approximately 29 percent of the cases opposed.[30]

These figures are considered to be highly meaningful in at least two respects. First of all, the high rate of successful oppositions notwithstanding the very strict examination indicates that industry, at least in Germany, *does* have access to private art collections in specialized art areas which may be harnessed as an aid to the government examination. Secondly, the high proportion of applications opposed and the high number of oppositions per application opposed indicate that Germany alone among the opposition countries of the world has been successful in enlisting the aid of industry in the examination process to any appreciable degree. One reason for this is that German industry has apparently chosen to use the opposition opportunity as an offensive weapon of positive competition. With an average of 3.2 oppositions filed per application opposed and with some oppositions having as many as 12 or 14 oppositions lodged against[31] them it is unlikely that each opposer has had a definite potential infringing interest in the subject matter of the patent. Rather it is more likely that many of the oppositions have been filed merely for the purpose of harming the competitor who is attempting to get a patent. In many instances this offensive utilization of the opposition opportunity has led to the undesirable result of many large corporations "ganging up" on a smaller competitor to preclude him from patent protection. These contests have often been fought over an inordinately long time span, resulting in extremely long pendency times for the applications involved and have doubtlessly contributed to the recent adoption in Germany of a deferred examination system.

That the German opposition system has attained a large degree of public participation only at the price of a large degree of unfairness is clear. The procedural aspects of the German system and the offensive way in which these procedures tend to be used have resulted in favoring large corporations and big industry at the expense of small industry and the independent inventor. As has been discussed earlier, the inability of the German examiner to curtail the proceedings despite the existence of totally unmeritorious grounds of opposition enables large corporations to file groundless claims against small applicants who cannot well afford to defend them and who may be forced to settle with the opposer. Likewise, because there is no limit to the number of opposi-

[30] *Id.* at par. 2.
[31] *Ibid.*

tions which may be filed against a single application, the small applicant may be put to the prohibitive expense of answering each opposition separately no matter how numerous and how similar they may be. The greatest amount of unfairness, however, is probably engendered by the fact that it is only the large corporations which can afford to carry on a continuous review of the many applications constantly being published, and likewise once potential targets have been chosen it is only the large corporations which can afford to direct opposition proceedings against them. Although the proposed American systems by the use of the "re-examination" mechanism have succeeded in overcoming the first two of these objections, it is this last important potential injustice which may outweigh any success which can be realized by the adoption of the proposed systems.

## The Pending Bills

Section 191 of the Subcommittee Bill provides for a period of one year after issue of the patent during which members of the public may submit pertinent prior art to the Patent Office. The bill is explicit in providing that "any person" may submit the citation, thus not restricting the operation of the system only to "interested" parties. If the pertinency of the citation to the claims of the patent is explained in writing the examiner will re-examine the claims of the patent in light of the new citation. Of course if the examiner feels that the claims of the patent are allowable over the new citation no adverse action will be taken and the patent will escape the one-year citation period unblemished and survive with an enhanced presumption of validity. On the other hand, if the new art renders one or more of the claims of the patent unpatentable, the examiner will issue the appropriate rejection after which the patentee will have an opportunity to narrow his claims. In this case the narrowed claims will survive with an enhanced presumption of validity. Claims which are rejected finally by the Office (including of course the right of appeal) will be cancelled from the patent, and additional claims added to the patent as a result of re-examination will be endorsed upon a certificate and attached to the patent.

Section 192 of the Bill provides that within one year after the issuance of the patent any person may notify the Commissioner that the invention was in public use or on sale in this country more than one year before the actual filing date of the application. It also provides that a party from whom the invention was derived may notify

the Commissioner of this fact. If a prima facie showing of public use or "derivation" is made out the issue shall be decided by the Board of Appeals.

Section 194 of the Bill provides that any person who has not proceeded under the re-examination or public-use provisions (Sections 192 or 193) shall not be prejudiced in any way in future litigation and also that any person who has proceeded under these sections shall not be foreclosed from asserting comparable grounds in the defense of an infringement suit or as a basis for affirmative relief under declaratory judgment proceedings. Thus Section 194 permits a member of the public who is aware of pertinent art at the time of issue to withhold such art until he is sued for patent infringement without incurring any penalty. Such a section is absolutely necessary to protect persons who do not have a potential infringing interest in the subject matter at the time the patent issues but later develop such an interest. Section 194 also permits art cited during re-examination to be re-introduced during litigation to prove invalidity, much the same as art which is originally cited by the Patent Office may again be utilized at litigation. Of course there is a strong presumption that the patent is valid over all art which has been considered by the Patent Office.

The Dirksen Bill proposes a re-examination procedure which is similar in most important respects to that advanced by the Subcommittee Bill.[32] The salient difference is that the Dirksen scheme provides a citation period of from three to six months after allowance but before issue instead of a period of one year after issue. During this period as in the Subcommittee Bill, pertinent art may be submitted, and public use or derivation may be claimed.

The primary difference between the re-examination before and re-examination after issue schemes is that in the latter the patentee is in a position to sue at the date of first publication, whereas in the former he must wait until the termination of re-examination proceedings and the issue of his patent. Although under re-examination before issue he may recover damages from the date of first publication (upon actual notice to the infringer) he is powerless to take any offensive step until after his disclosure has been available to the public for what may be a period of several years. Although under the re-examination after issue scheme the willingness of a court to issue a final judgment on a patent case while re-examination is proceeding in the Patent Office may well be doubted, at least here the patentee may attain the satisfaction of forcing the infringer to defend his acts at the earliest possible date.

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[32] § 136 of S.1569.

## How Well Will the Proposed Systems Function In the American Patent Environment

The advantages to be afforded by any re-examination system will be directly proportional to the degree of public participation which can be achieved under it. As illustrated by the respective German and English opposition systems, the particular environment in which the system is to operate can be expected to greatly influence its performance. As will be shown, the peculiar American patent environment cannot be expected to generate the kind of public participation which may be necessary to make the proposed system a success.

Although both of the proposed bills are explicit in providing that any member of the public may challenge the grant of the patent, as a matter of practical reality only those individuals with some proprietary interest in preventing the issue of the patent will do so. This "potential citing public" may be divided into two component parts: (1) those parties who are contemplating either immediate or future infringement of the patent and who will be referred to as potential infringers, and (2) those parties who are not contemplating infringement but who are in general competition with the patentee and wish to use the re-examination procedure as an offensive weapon to preclude the patentee from obtaining patent protection. These parties will be referred to as "offensive challengers."

Potential infringers, it is likely, will perform a "validity search" shortly after the issue of the patent or the publication of the application and will in many cases have pertinent prior art in their possession at the time of re-examination. It is most significant to note, however that such persons will *probably not* cite such art to the Patent Office during re-examination to attempt to defeat the grant of the patent. This is because the potential infringer will do better for himself by keeping the uncovered art secret for possible future use in the defense of a patent infringement suit. Because the standard of patentability of the courts is generally higher than the standard of the Patent Office,[33] the potential infringer will have a better chance of invalidating the patent in court than before the Patent Office. Then, too, if the art cited during re-examination were to be reviewed by the same examiner who examined the application originally (the bills do not specify which part of the Office will conduct the re-examination), the potential infringer might fear a reluctance on the part of the examiner

[33] John Robert Duncan, "The European Patent Convention as a Guide to Modernizing Our Patent Examining System," *IDEA*, Vol. 8, No. 3 (Fall 1964), p. 405, 425.

to concede the pertinency of the art. It is considered that only in the case of the completely anticipatory reference or in the case of the really excellent "obviousness" reference would the potential infringer risk the presentation of his case before the Patent Office. One reason for the high use-rate of the opposition procedure in Germany is that the German opposition system is not hampered by a court system which has a different standard of patentability from the Patent Office. Until recently, actions for invalidation in Germany had to be brought before the Patent Office itself, and presently they must be brought before a federal patent court which presumably has the same standard as the Patent Office.[34] In the United States, then, because completely anticipatory references are relatively rare, especially after the examiner has failed to find one in his examination search, it is concluded that potential infringers will make only infrequent use of the re-examination opportunity.

The other portion of the "potential citing public"—"the offensive challenger"—must possess the financial resources to oppose applications which may be of less than vital interest to him. While even a small corporation, if it had a potential infringing interest in the subject matter of an application, could justify the expense of challenging the application, the same corporation could hardly justify such expense merely for the purpose of preventing the competition from enlarging its stockpile of patents. Only the relatively large corporation with a relatively large commitment to a patent operation could justify such an activity.

It has been estimated that the annual cost of merely reviewing the hundreds or perhaps thousands of patents which each year would be of interest to any industry would be between $2,000 and $10,000.[35] Of course the attorney's fee for drafting the appropriate challenges might run considerably in excess of these figures depending on how many challenges are made each year and the exact nature of the individual challenges. The cost of a single public-use proceeding, for instance, might run into several thousand dollars.

It is difficult to estimate how active "offensive challengers" will be in citing art to the Patent Office. Some factors which may influence a corporation's likelihood to challenge an application may be the accessibility of the particular prior art involved, the market relationship of the challenging corporation to the patentee and the projected importance of the patent to the patentee. One thing is certain, though, and

[34] *Supra* note 25 at 54.

[35] William E. Schuyler, Jr., "Small Business and the Proposed Patent Reform Act of 1967," *George Washington Law Review*, Vol. 36, pp. 122, 123.

that is that only wealthy corporations will be in a position to use the re-examination procedure aggressively against their competitors. For this reason small business and the independent inventor may be expected to suffer if the proposed procedures are adopted. It is significant to note that the most frequently voiced criticism which has arisen in discussion of the adoption of the re-examination procedure has been the fear that it will be used offensively by big business to the serious detriment of the small-business patentee.

This objection should not be taken lightly. The built-in prejudice against small industry and the independent inventor and in favor of the large corporation is one which should give our legislators pause in evaluating the merits of the re-examination system. For small corporations, it appears, have made an inordinate inventive contribution to the industrial progress of our nation. While large corporations are responsible for funding a greater dollar volume of research and development and have therefore over the years produced a greater *number* of inventions, recently published statistics indicate that small corporations and independent inventors have been responsible for a disproportionate number of the singularly important inventions of our time. A report published by the U. S. Department of Commerce in 1967 concluded that more than half of the most significant inventions in the 20th century and more than two-thirds of the major inventions during the 1946-1955 decade were due to the inventive efforts of small companies.[36] Included among these are xerography, insulin, penicillin, FM radio, the zipper, air conditioning and a host of other landmark inventions.[37]

While equitable considerations alone should be sufficient to raise serious doubts about the wisdom of employing a re-examination scheme in the United States, an appreciation of the significant role that small industry has played in the inventive development of our nation would appear to give firm economic substance to these doubts. For it is clear that if the past performance of this segment of our industrial community is any indication of the future, as it probably is, it would be a mistake to pass any legislation which would have the effect of curtailing the inventive incentive of the small inventor. The passage of such legislation, it is considered, would be tantamount to the practice of poor economics as well as to the implementation of poor justice.

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[36] *Supra* note 35.
[37] *Ibid.*

## Conclusion

In appraising the desirability of any proposed legislation, the potential benefits which may be realized from such legislation must be weighed against the possible detriments. While it is recognized that patent invalidity is a serious problem confronting our patent system and while the unfortunate consequences of this problem are not to be minimized, it is concluded that the proposed re-examination procedure may not be the proper vehicle with which to improve the validity of issued patents. Potential infringers would not avail themselves of the system but rather would withhold pertinent prior art to be used as a defense in a patent infringement suit. The degree of public participation realizable under such a system would therefore not be great. On the other hand, because the system could be used aggressively by large corporations against their smaller competitors, the system would work an injustice to the highly significant and highly innovative small business segment of our industrial community. It is concluded therefore that the small degree of public participation attainable would not be great enough to outweigh the considerable inequity inherent in the proposed systems and that therefore the balance of values must decidedly dip against the adoption of such a system.

# Defensive Patenting—An Exaggerated Problem

SAUL ELBAUM*

SUMMARY

THE PRACTICE OF DEFENSIVE PATENTING is examined with a view toward determining the magnitude of the problem as well as the suitability of available alternatives. The author concludes that the practice has been unjustifiably blamed for the large backlog in the Patent Office. While passage of the publication provision in the Patent Revision Bill is recommended as being a distinct improvement over the recently instituted Defensive Publication Program, the author cautions against expectations that the Revision Bill will materially reduce the backlog.

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## INTRODUCTION

THE SUBJECT OF DEFENSIVE PATENTS is of interest to those concerned with reducing the backlog of cases pending before the United States Patent Office.[1] Defensive patents are viewed as being of no use to their owners except for the protection they afford against an infringement suit by a later inventor. Theoretically, if the same protection could be guaranteed without having to resort to filing patent applications, the backlog would be greatly reduced, the burden and expense of filing would be eliminated, and the patent system could concentrate its efforts on more meaningful and significant inventions.

While much has been written about the problem of defensive patenting, there is a dearth of statistical information on the magnitude of the problem. The Subcommittee on Patents, Trademarks and Copyrights has undertaken to determine the extent of the practice by corporations,[2] but this has failed to produce any enlightening data. Absent any factual information, writers and critics have been free to guess. The figure most often quoted is that up to one-third of all patent applications are filed for defensive purposes.[3] One recent study viewed the situation in the following alarming tone:

> The practice of defensive patenting monopolizes new devices from the public domain during the life of the patent. There is no corresponding benefit to the patentee, who is motivated and benefited in such instances solely by the defensive protection he receives upon the moment of issuance. The result is public detriment without the corresponding public gain which is supposed to represent the consideration from the disclosure of invention.[4]

This paper will challenge the premise that defensive patenting is a widespread practice of alarming proportions. The extent to which applications are filed solely for defensive purposes will be analyzed in light of the motivation to acquire patents and the suitability of alternative methods of protection.

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[1] Railton, "The Examination System and the Backlog," *IDEA,* Vol. 9, No. 3 (Fall 1965), p. 487 at 505.

[2] Hearings before the Subcommittee on Patents, Trademarks, and Copyrights, "Distribution of Patents Issued to Corporations (1935-55)," S. Doc. No. 23, 85th Cong., 1st Sess. (1957).

[3] Davis, "Proposed Modifications of the Patent System," *Law & Contemporary Problems,* Vol. 12 (1947), p. 796 at 800.

[4] Ericson and Freedman, "Publication in Lieu of Patents: Defensive Patenting and the Welfare of the Patent System," *George Washington Law Review,* Vol. 26 (1957), p. 78 at 80.

## Defensive Measures Other Than Patenting

### *Private Publication*

The traditional alternative to defensive patenting has been defensive publication, which is still a factor in limiting the rate at which some large corporations file patent applications.[5] A publication of the invention bars a valid patent on the same invention if published more than one year prior to the applicant's filing date[6] or if published anytime prior to the applicant's invention.[7] A subsequent inventor may, however, obtain a patent if his invention is prior to the date of publication and if he files within one year of the date of publication. The applicant for patent need only "swear behind" the date of publication,[8] as no determination of priority of invention is instituted between an applicant for patent and one who merely publishes.[9] This, of course, places a premium on filing applications and is one of the reasons that private publications do not provide a suitable substitute to patenting.

A prior inventor who publishes instead of filing is not left completely without a remedy. If sued for infringement, he can prevail by invoking 35 U.S.C. 102 (g) [10] to prove prior inventorship;[11] however, he must establish actual reduction to practice while the patentee can rely on his filing date as constructive reduction to practice.[12] The prior inventor can also prevail by proving that the invention was "known or used by others" before the patentee's invention,[13] but this requires establishing two elements: first, that the knowledge was accessible to the public,[14] and second, that the knowledge was of a device reduced to practice.[15] Proving actual reduction to practice can be a difficult task, especially if records have not been accurately kept and employees have left the company.[16]

Despite the obvious disadvantages of private publication two major

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[5] Hauptman, "Publication Instead of Filing," 45 *JPOS* 733, 734 (1963).
[6] 35 U.S.C. § 102 (b) (1964).
[7] 35 U.S.C. § 102 (a) (1964).
[8] 37 C.F.R. 1.131.
[9] 35 U.S.C. § 135 (1964).
[10] 35 U.S.C. § 102 (g) (1964).
[11] Corona v. Dovan, 276 U.S. 358 (1927).
[12] Sundh Electric Co. v. Interborough Rapid Transit Co., 198 Fed. 94 (2 Cir. 1912).
[13] 35 U.S.C. § 102 (a) (1964).
[14] *Supra* note 11 at 383.
[15] Stearns v. Tinker and Rasor Co., 220 F.2d 49, 56 (9 Cir. 1955), 104 *USPQ* 234, 238.
[16] For an interesting account of the difficulties involved see Helvestine, "Pro-

companies, RCA and IBM, do engage in a significant amount of private publication.[17] These companies apply this limited form of protection to their marginal inventions while continuing to file patent applications on significant improvements or heavily marketed products.[18] Among government agencies, the Department of Health, Education and Welfare is notable for its defensive publications.[19]

*Publication of Abstracts*

In order to minimize the prosecution of defensive applications, the Patent Office instituted a practice in 1949 of allowing an applicant to abandon his application in favor of having an abstract published in the *Official Gazette*.[20] Aside from numerous procedural difficulties which plagued it,[21] the program was severely handicapped by the substantive law with regard to the effective date of a reference. Under the *Milburn* doctrine,[22] an application which matures into a patent is an effective reference as of its filing date. However, there was grave doubt as to whether an application which only matured into an abstract could rely on its filing date in the same way.[23] The rule in *Milburn* was codified[24] and judicial and legislative attempts to extend it beyond issued patents have been unsuccessful.

The *Schlittler* case held that a publication is not public knowledge of the invention as of the date of submission to the publisher because it is neither accessible to the public nor does it constitute reduction to practice.[25] In this regard it should be noted that an issued patent is not an effective reference as of its filing date because of 35 U.S.C. 102 (a), but because of 35 U.S.C. 102 (e), which does not apply to publications.[26]

In spite of *Schlittler,* the Board of Appeals recently held in *Ex parte*

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tecting Navy Inventions," *Naval Research Reviews,* Vol. 8 (September 1959), p. 13.

[17] Hauptman, *supra* note 5 at 735.

[18] *Id.* at 737.

[19] 45 C.F.R. § 6.2; Banta and Hiller, "Patent Policies of the Department of Health, Education, and Welfare," *Federal Bar Journal,* Vol. 21 (1961), p. 89.

[20] Comm. Notice, 619 O.G. 316 (1949).

[21] Bethurum, "Defensive Patenting and Some Proposed Choices," *Federal Bar Journal,* Vol. 25 (1945), p. 131 at 136.

[22] Milburn Co. v. Davis-Bournoville Co., 270 U.S. 390, 1926 C.D. 303, 344 O.G. 817 (1926).

[23] Ericson and Freedman, *supra* note 4 at 90.

[24] 35 U.S.C. § 102 (e) (1964).

[25] *In re* Schlittler and Uffer, 43 C.C.P.A. 986, 234 F.2d 882, 1956 C.D. 366, 110 *USPQ* 304, 709 O.G. 946 (1956).

[26] *Id.* at 994, 234 F.2d 885, 1956 C.D. 369, 110 *USPQ* 308.

*Lipkin* that the file of an abandoned application constituted prior knowledge as of the date of publication of its abstract.[27] The Board reasoned that on that date the entire file was laid open to the public in accordance with Rule 14 (b).[28] The abstract alone was insufficient to meet the claims, and the Board agreed with appellant that the file was not a "printed" publication as of the date it became available to public inspection.[29] In justifying its decision the Board of Appeals discussed and distinguished a number of pertinent decisions, the most notable of which is the *Cornplanter* case.[30]

In the *Cornplanter* case the Supreme Court held that an abandoned application cannot be used as a prior art reference, and that "it can only have a *bearing* on the question of prior invention or discovery."[31] (Emphasis added.) At that time it was the practice of the Patent Office to open all abandoned applications to the public and to rely on such applications for rejections;[32] however, the Supreme Court apparently was not apprised of this practice[33] and treated the case as one for which the abandoned application was not made public. The Board seized upon this fact to distinguish the case. Because the examiner was reversed on other grounds, the issue was not appealed.

The *Lipkin* decision may be good authority within the confines of the Patent Office, but it is doubtful whether the holding will survive a test in the CCPA. The CCPA's opinion on what constitutes prior knowledge is already apparent from its decision in *Schlittler.* Citing the *Cornplanter* case for authority, the CCPA stated,

> It is, moreover, settled that a disclosure in an abandoned application for a patent does not constitute such evidence of prior knowledge as will bar the allowance of a subsequent application.[34]

More recently in the CCPA, the case of *In re Lund et al.*[35] is somewhat analogous to the situation in *Lipkin.* In *Lund* the reference relied on for the rejection was the abandoned parent application from which a continuation-in-part finally issued. The examiner relied on disclosure which appeared only in the abandoned parent application

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[27] *Ex parte* Lipkin, 129 *USPQ* 427 (Pat. Off. Bd. App.; 1960).

[28] *Id.* at 430.

[29] *Ibid.* The question of whether an abandoned application which is laid open to the public is a "printed" publication is discussed in Orenbuch, "Abandoned Applications as Prior Art," 45 *JPOS* 613, 632 (1963).

[30] Brown v. Guild, 90 U.S. 181, 23 L.Ed. 160 (1874).

[31] *Id.* at 210.

[32] Federico, "Abandoned Applications as References," 28 *JPOS* 160 (1946).

[33] Orenbuch, *supra* note 29 at 616.

[34] *In re* Schlittler and Uffer, *supra* note 25 at 990, 1956 C.D. 370, 110 *USPQ* 306.

[35] *In re* Lund and Godtfredsen, 153 *USPQ* 625 (1967).

and not in the continuation-in-part. The court recognized that an application may incorporate other applications by reference, but ruled that the mere statement in an application that it is a continuation-in-part of another application is insufficient to accomplish incorporation by reference.[36] As for the matter of prior knowledge, the court held that the abandoned application "becomes available as *evidence* of prior knowledge, if at all, only as of the *issue date* of the [continuation-in-part] patent."[37] (Emphasis added.)

It is significant that the court did not suggest that the abandoned application would constitute actual prior knowledge, only evidence of prior knowledge. This distinction is important and is probably a good indication of how the CCPA might treat a case similar to *Lipkin.*

*New Defensive Publication Program in the Patent Office*

On April 11, 1968 the Commissioner promulgated a new defensive publication program.[38] Under this program an applicant may elect within eight months of his filing date to expressly abandon his application, abandonment to become effective in five years, and obtain a defensive publication in the form of an abstract printed in the *Official Gazette.* The advantage to the Patent Office is that the election to participate will probably be exercised before the first action on the merits. One interesting feature of this program, which is an improvement over the old abstracts program, is that the applicant is given 30 months in which to change his mind and file a continuation application. Thus, if the invention should prove to have commercial value within the time period allotted for change, the applicant's patent rights would not be forfeited. Also, during the five-year period before abandonment becomes effective, interferences may be initiated with other pending applications or with patents.

The major drawback of the program is that ultimately it is still a publication and affords no protection until the abstract is published. In this regard the last sentence of the Commissioner's statement is interesting. It states that upon publication of the abstract "the application will become available as prior art under 35 U.S.C. 102 (a) as *evidence* of prior knowledge from the actual date of *filing* the application in the Patent Office."[39] (Emphasis added.) This is at

[36] *Id.* at 631.
[37] *Id.* at 633.
[38] 33 Fed. Reg. 5623 (April 11, 1968).
[39] *Id.* at 5624.

variance with the CCPA's statement in *Lund* which held that an abandoned application constitutes evidence of prior knowledge, if at all, only on the date it becomes available to the public.[40] The Commissioner's statement also fails to recognize the Board of Appeals' decision in *Lipkin* which held that the file of an abandoned application of which an abstract had been printed constitutes actual prior knowledge under 35 U.S.C. 102 (a) so as to defeat another application for patent. In so stating, the Commissioner is tacitly disapproving of the *Lipkin* decision.

*Patent Revision Bill S.1246*

On February 28, 1969 Senator McClellan introduced a bill "for the general revision of the patent laws."[41] Section 123 is the publication provision and reads as follows:

> The Commissioner may establish regulations for the publication of pending applications at the request of applicants and shall publish applications in accordance therewith. When so published such applications shall have the same effect as issued patents for the purpose of section 102 (e) of this title.[42]

While this proposal is not novel,[43] it is probably closer to passage than any of its predecessors. The purpose of this bill is to give a published abandoned application the same defensive protection as a patent. In effect it amounts to a legislative extension of *Milburn*.

If this provision is enacted it will, for the first time, provide a fully adequate defense to a later patentee's infringement suit without the need for prosecuting a patent application to completion. Of course, the application will still have to be prepared and claims will still have to be drafted, but this is a small price to pay for the added protection which the program would afford. One should not however be overop-

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[40] *In re* Lund and Godtfredsen, *supra* note 35 at 633.

[41] S.1246, 91st Cong., 1st sess. (1969).

[42] 35 U.S.C., § 102 (e) provides: "An applicant shall be entitled to a patent unless—the invention was described in a patent granted on an application for patent by another having an actual filing date in the United States before the invention thereof by the inventor named in the application for patent."

[43] A similar proposal was introduced in H.R. 9133, § 121, 81st Cong., 2nd sess., (1950). In 1957 legislation was proposed which would have permitted an applicant to abandon his application at any time during the prosecution and obtain a publication whose effective date as a reference would be its filing date. S.2277, 85th Cong., 1st sess.

In 1964 and 1965 identical publication provisions were proposed which would have given the applicant 90 days in which to elect a publication of the invention. S.1005, 89th Cong., 1st sess. (1965); S.3007, 88th Cong., 2nd sess. (1964).

timistic about the effect of this provision on the backlog in the Patent Office. As will be discussed in the next section of this paper, the whole problem of defensive patenting is believed to be exaggerated and overemphasized. The bill should, however, encourage a certain amount of participation and, to the extent that it does, it will reduce the backlog.

## The Magnitude of The Problem

### *Defensive Patenting by Industry*

The term "defensive patent" has often been loosely applied to patents which are not entirely defensive. Hauptman defines a defensive patent as one for which there is a "grave doubt as to patentability and commercial success."[44] Inventions which are clearly patentable or which are heavily marketed are not, he suggests, suitable for publication. Despite this limited definition, Hauptman proceeds to list among the advantages of defensive patents their usefulness in acquiring financial aid and as valuable bargaining tools in cross-licensing negotiations.[45] Other writers have characterized defensive patents with similar attributes.[46] It is submitted that there is an inconsistency in attributing valuable commercial property rights to patents which are supposed to be solely defensive in nature.

The desire to obtain royalty income from patents and the need to have bargaining power in cross-licensing negotiations are among the more common factors which motivate companies to acquire patents.[47] For the private inventor or small company the use of patents to obtain financial backing or licenses under dominating patents is undoubtedly among its reasons for seeking patent protection. Because rapidly advancing technology has produced many improvements to basic inventions, cross-licensing between dominating patents and improvement patents has been increasing significantly.[48] In a study conducted by The PTC Research Institute it was found that the major single reason for granting licenses was to obtain a cross-license on another

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[44] Hauptman, *supra* note 5.

[45] *Ibid.*

[46] Ericson and Freedman, *supra* note 4 at 82; Bethurum, *supra* note 21 at 32; Peters, "Publication of Pending Applications," 48 *JPOS* 553, 570 (1966).

[47] Strong and Markham, "Patents and Other Factors Affecting Executive Decisions," *PTC J. Res. & Ed. (IDEA)*, Vol. 4, No. 1 (Spring 1960), p. 49 at 52.

[48] "Effective Use of Government-Owned Rights to Inventions: Publication Versus Patenting," *George Washington Law Review*, Vol. 55 (1967), p. 1083 at 1085.

invention.[49] It is, therefore, apparent that any patent with cross-licensing potential has more than just defensive value, and the owners of these patents should not be expected simply to dispose of their patent rights in favor of a publication, no matter how effective that publication may be.

Having eliminated patents with cross-licensing value from the realm of defensive patents, it remains to be considered just how many applications are actually submitted for inventions of doubtful patentability and insignificant commercial success. In this connection it may be helpful to consider the use rates of patented inventions.

Based upon a random sample of 2 percent of patents issued in the years 1938, 1948 and 1952, The PTC Research Institute found that the percentage of assigned patents actually used[50] in industry is in the neighborhood of 55 to 65 percent and possibly as high as 60 to 70 percent.[51] For "small" companies[52] the lower limit is 70 percent and the upper limit may be beyond 80 percent.[53] If the definition of useful patents is extended to include patents which have been licensed, at least an additional 25 percent of the unused patents may be considered useful.[54]

The question is, does it follow from the fact that a patented invention has been "used" in industry that the patent was not acquired for defensive purposes? Returning to Hauptman's definition of defensive patenting, it is noted that inventions of insignificant commercial value probably do not warrant full patent protection and can best be protected by a suitable defensive publication. If the major portion of "used" patents are in fact exploited only to a very limited degree, then the PTC study would have little bearing on the question

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[49] Thirty-nine percent indicated the desire to obtain cross-licensing as the reason for granting a license. Rossman and Sanders, "Variations in Patent Utilization by Different Types of Companies," *PTC J. Res. & Ed. (IDEA)*, Vol. 3, Conference Number (1959), p. 54 at 55.

[50] The term "use" or "commercial use" in the Patent Utilization Study was defined as "making or selling the patented invention or using the patented invention in the production of goods or services, or making financial arrangements with a third party for the production or sale of the patented invention." Sanders, Rossman and Harris, "The Non-use of Patented Inventions," *PTC J. Res. & Ed. (IDEA)*, Vol. 2, No. 1 (March 1958), p. 1 at 4.

[51] Sanders, Rossman and Harris, "Patent Acquisition by Corporations," *PTC J. Res. & Ed. (IDEA)*, Vol. 3, No. 3 (Fall 1959), p. 217 at 218-219.

[52] *Id.* at 217. Companies with assets in excess of $100 million or holding more than 75 patents during the period 1939-55 are referred to as "large" companies. All others are "small."

[53] *Id.* at 219.

[54] Sanders, Rossman and Harris, "The Economic Impact of Patents," *PTC J. Res. & Ed. (IDEA)*, Vol. 2, No. 3 (September 1958), p. 340 at 359.

of defensive patenting. This is not, however, the case. The Institute's findings show that, for assigned patents in current use, 96 percent had been used to a measurable extent.[55] In view of the relatively low cost of patent procurement it seems reasonable that full patent protection would be warranted for such inventions. Thus, with so many patented inventions experiencing significant use it hardly seems reasonable to suggest that one-third of all patent applications are filed purely for defensive purposes.

Finally, in evaluating the magnitude of defensive patenting one should consider the large number of invention disclosures which never mature into patent applications. It has been suggested that a substantial number of patentable inventions remain unpatented.[56] Some of these disclosures turn up in defensive publication programs and a few find their way into technical and scientific journals. What this means is that industry does a good deal of selecting and applies for patents only on its most meritorious inventions.

### *Defensive Patenting by Government*

As of 1964 the federal government owned approximately 13,500 patents,[57] making it the largest single patent owner of any organization,[58] and its patent procurement has been on the increase with an average addition of 1,200 patents each year.[59] At that rate the number should reach 20,000 by the end of this year. As a consequence of its large patent procurement program, and especially because it does not enforce its patents,[60] the federal government is a prime target for those who attack defensive patenting. There is some authority for the proposition that the government, by its long-standing practice of not enforcing its rights, is estopped from enforcing them now.[61] One school of thought believes that the government may not constitutional-

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[55] *Id.* at 343.

[56] Watson and Holman, "The Federal Government's Propensity to Patent," *IDEA,* Vol. 10, No. 1 (Spring 1966), p. 61 at 62.

[57] Watson and Holman, "Patents from Government-Financed Research and Development," *IDEA,* Vol. 8, No. 2 (Summer 1964), p. 199 at 207.

[58] Holman, "The Utilization of Government-Owned Patented Inventions," *IDEA,* Vol. 7, No. 2 (Summer 1963), p. 109.

[59] *Annual Report on Government Patent Policy,* Federal Council for Science and Technology (June 1966), p. 23.

[60] The government offers an exclusive, royalty-free license to anyone who asks for it. 34 Op. A.G. 320 (1924).

[61] Tektronix, Inc. v. United States, 351 F. 2d 630, 147 *USPQ* 216 (Ct. Cl. 1965).

ly grant to itself a valid patent.[62] Whatever the merits of that theory, it is generally agreed, and the government does not deny, that the government's primary purpose in filing patent applications is to defend against potential infringement suits.[63]

This being the case it has been suggested that the government abandon its costly patent procurement program and simply publish all its disclosures, thereby effecting a tremendous financial saving by eliminating an estimated 300 government patent attorneys along with their clerical staff, office equipment, space and overhead.[64] This view is somewhat oversimplified. First, it will still be necessary to maintain a substantial staff of trained patent personnel to handle infringement claims against the government which, incidentally, are likely to increase if this view is adopted. Furthermore, patent professionals will still be required to write these disclosures if they are to have their intended legal effect as an anticipating publication. The gathering of information and writing of disclosures may be almost as time-consuming as the preparation of a patent application, and yet the publication would still be handicapped by all the procedural disadvantages that are characteristic of non-patent publications.

One writer believes that all pending government applications could be published if a suitable publication bill were passed.[65] This conclusion is apparently based on the erroneous premise that a defense to infringement suits is the only benefit the government derives from its patents. Actually the government derives some direct benefits not related to defensive purposes. One such benefit is that patent ownership enables the government to enter into international cross-licensing agreements.[66] Foreign countries and their nationals are not precluded by statute from obtaining United States patents and enforcing them against U.S. citizens and their government. Similarly, U.S. citizens and the U.S. government may obtain exclusive patent rights in foreign countries. The U.S. government may also license its patent rights in foreign countries,[67] and cross-licensing may be negotiated under such

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[62] For a thorough discussion of this issue see Cohen, "The Constitution and Enforcement of Government-Owned Patent Rights," *PTC J. Res. & Ed. (IDEA)*, Vol. 5, No. 3 (Fall 1961), p. 261.

[63] Helvestine, *supra* note 16; Saragovitz, "Procurement of Patent by Government Agencies," 37 *JPOS* 677, 683 (1955).

[64] Berger, "Utilization or Dispensation—Suggestions for the Government's Patent Procurement Program," 48 *JPOS* 449, 461 (1966).

[65] Peters, *supra* note 46 at 569.

[66] Forman, *Patents—Government Ownership and Administration*, p. 55 (1957).

[67] Government Patents Board Administrative Order, No. 4, March 12, 1951 as amended June 24, 1954, 19 *Federal Register* 3937.

an arrangement.[68]

Under an Executive Order issued in 1947, a program was initiated for the protection of government inventions internationally.[69] Broadly, its purposes were outlined as follows:

(1) To prevent foreign-owned patents from blocking foreign markets;
(2) To counteract a tendency by foreign governments of acquiring U.S. patents;
(3) To provide the government with bargaining power for the use of foreign patents.

A reciprocal program now exists between the U.S. government and Canada and the U.K. whereby U.S.-owned applications are submitted for filing in the foreign countries in return for a royalty-free license granted to the foreign government. The foreign countries can file in the U.S. under the same conditions. The purpose of the program is to permit cross-licensing with friendly nations and to protect U.S. government-owned inventions outside of the United States.[70] Obviously, the government would be at a disadvantage internationally if it simply abandoned its patent procurement program.

The possibility that the government may actively enforce its patent rights in this country is not without its supporters.[71] One such proposal was made in a Senate bill proposed by Senator Long of Louisiana.[72] The National Aeronautics and Space Administration now grants some exclusive licenses,[73] and the possibility that this practice may become government-wide is at least some incentive for not completely abandoning the practice of patent procurement. It is noted that Britain actually collects royalties on its government-owned patents.[74]

It should be appreciated that the government does not arbitrarily file patent applications for all its invention disclosures. In addition to considering patentability, the government evaluates its disclosures with respect to technological importance and government use of the

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[68] Forman, *supra* note 66 at 58.

[69] Executive Order 9865, June 14, 1947 as amended by Executive Order 10096, January 23, 1950, 15 *Federal Register* 389.

[70] Annual Report of the Navy Patent Organization, ONR 5870-1 (1961).

[71] Gorn, "Toward a Sound National Policy for Distribution of Patent Rights under Government Contracts," *Federal Bar Journal,* Vol. 21 (1961), p. 105 at 117.

[72] S.1176, 87th Cong., 1st sess. (1961).

[73] NASA makes patents available for nonexclusive royalty-free licensing for the first two years after issuance. Any patents remaining unused after two years are made available for exclusive licensing. 14 C.F.R. § 1245.205 (1962).

[74] Holman, *supra* note 58 at 341 (1963).

invention. While there is considerable variation among the different government agencies, on the average, the government patents only about 27 percent of its disclosures.[75] It is, therefore, clear that the government, just like industry, is very selective in its patent procurement program.

A less tangible though no less important factor which influences the government's patent policy is the matter of inventor morale. Among the government's employees are many competent and creative scientists who contribute in a significant way to the body of useful knowledge. Many of these contributions would probably not be published but for the patent system. Unless the government's scientists are given adequate recognition for their achievements they may be inclined to go to private industry where patents are more likely to issue in their names.

It would be naive to believe that even an ideal defensive publication bill would motivate the government to give up its patent procurement practice. Government receives tangible benefits from patents just as does private industry, and to that extent, it may be expected to continue to seek patent recognition. However, it is only realistic to concede that the government does file some disclosures which are of marginal value and can probably be best protected by a suitable defensive publication. If such a suitable publication bill is enacted, the government may re-examine its patent procurement policy and perhaps set higher standards for its patent procurement program, with some of the marginal inventions being published under the provisions of the new bill.

To the extent that the government does choose to participate, the backlog will, of course, be lightened, but the degree of participation will probably be insignificant.

## CONCLUSION

The patent system has long sought for a suitable alternative to defensive patenting. Private publications and Patent Office abstracts are both handicapped by the substantive law with respect to the effective date of a reference. What is needed is a publication provision such as Section 123 of the proposed patent bill S.1246, which would extend the *Milburn* doctrine beyond issued patents. Such a bill would provide a safe alternative not previously available and could be

[75] Watson and Holman, *supra* note 56 at 73.

expected to draw greater participation than the current Defensive Publication Program.

One should not, however, expect too much even from an ideal bill. The subject of defensive patenting has been somewhat exaggerated and it is believed that there is no support for the often-quoted contention that one-third of all applications are filed solely for defensive purposes. The high utilization rate of patents in industry simply does not admit of such vast numbers of nonessential patents. As for the government, the benefits it derives from its patents are more than just defensive and probably justify the cost, at least for the substantial portion of its patent procurement program. Thus, both government and industry can be expected to continue filing large numbers of patent applications in spite of the availability of a safe and suitable alternative.

Nevertheless, the publication provision of the proposed patent bill can be expected to attract some participation with a corresponding decrease of the Patent Office backlog. To the extent that it does, it will be a welcome piece of legislation and its passage should therefore be encouraged.

# The Federal Declaratory Judgments Act As It Applies to Patent Actions*

PAUL E. KRIEGER

SUMMARY

PATENT ACTIONS ARISING under the Federal Declaratory Judgments Act have generated an enormous amount of litigation. In such cases the validity of a patent is invariably challenged. Because of the economic impact these decisions may have, equitable and just results are imperative.

The Act was originally adopted to prevent patent holders from using their patents in an intimidating and oppressive manner against parties operating in the same general area covered by the patents. Most cases arising under the Act turn on jurisdictional issues. The outer jurisdictional boundaries are still undetermined.

This paper discusses the essential elements required for jurisdiction under the Act, and analyzes representative and recent cases in an attempt to determine the status of jurisdiction under the Act today and whether the sought-after end of justice is served.

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## INTRODUCTION

"PROCEDURE SHOULD BE THE HANDMAID OF JUSTICE, a means to an end."[1] This ideal, enunciated by Professor Borchard in his treatise on declaratory judgments, has special applicability with regard to declaratory relief and its role in patent actions.

The Declaratory Judgments Act,[2] as passed and amended,[3] created a new procedural remedy at the federal level:

> In a case of actual controversy within its jurisdiction, except with respect to Federal taxes, any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such.

The Act did not establish a new basis for jurisdiction in the federal courts; it merely established a new remedy, available in cases in which jurisdiction otherwise exists.[4] As a practical matter the Act afforded a new remedy to a party charged with infringement of a patent, whereby that party can now initiate an action in a federal court against the patentee for a declaration of invalidity and/or noninfringement.

> Before passage of that Act patentees received greater protection from the law than was warranted by their patent monopoly. Competitors desiring to introduce an article somewhat similar to one already patented met with much difficulty. The patentee could, without bringing suit, publicly claim an infringement and threaten to sue the manufacturer or anyone who dealt with the product in issue. Unless the patentee's actions were of such a character that he might be shackled with the sanctions of the law of unfair competition, he had his alleged infringer at his mercy. Although the competitor's business was gravely injured, he was remediless and in order to survive, he might be forced to make a settlement with a patentee whose claim of infringement was absolutely unfounded. Prior to [passage of Federal Rule 41 (a), 28 USCA, where discontinuance without prejudice became subject to terms and conditions set by the court], the patentee might even bolster his charges by bringing an action for infringement and publicly advertising the fact to the trade. Then after postponing trial as long as possible, he could move for a dismissal without prejudice and repeat the process.[5]

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1 Borchard, *Declaratory Judgments* (2nd Edition), p. xiii.

2 48 Stat. 955, 28 U.S.C.A. 400.

3 28 U.S.C.A. 2201. The 1941 amendment to the Act as originally passed simplified the wording without making any substantive changes.

4 Skelly Oil v. Phillips Petroleum Co., 339 US 667, 671; 70 S. Ct. 876; 94 L.Ed. 2d 604 (1950).

5 Tremond Co. v. Schering Corporation, 122 F. 2d 702 (1941, 3rd).

There is a moderate amount of commentary on the topic about to be discussed in this paper. It is the intention of the author not to repeat the work done previously. Although some repetition is necessary in developing the material, discussion will be centered on representative and important decisions, and recent developments. Thus, with these qualifications, the purpose of this paper is to discuss the essential elements required for jurisdiction under the Act, and whether the Act as interpreted has indeed served as a means toward justice—the sought-after end.

## Jurisdiction Under the Act

Basic jurisdiction under the Act, as to whether a patent is valid and whether infringement exists, is grounded not on diversity, but on whether there is a controversy under the patent laws of the United States.[6] Where the validity of the patent or its infringement is at issue, there is clearly an action arising under the patent laws.[7]

It is basic to jurisdiction in the federal courts that genuine "case or controversy" be made out.[8] The Declaratory Judgments Act expressly requires that an "actual controversy" exist between the parties. The Supreme Court of the United States, in upholding the constitutionality of the Act, said in a widely quoted case that the Act ". . . does not attempt to change the essential requisites for judicial power. By its terms, it applies to 'cases of actual controversy,' a phrase which must be taken to connote a controversy of a justiciable nature, thus excluding an advisory decree upon a hypothetical state of facts."[9]

"A justiciable controversy is thus distinguished from a difference or dispute of a hypothetical or abstract character; from one that is academic or moot."[10]

In patent actions the criterion of actual controversy is quite important, with the jurisdictional issue in most cases turning on that point. The myriad of patent cases arising under the Act, however, have resulted in a body of law which is not always uniform among the circuits.

Within the scope of this analysis there are two parties involved in

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[6] United States Galvanizing & Plating Corporation v. Hanson-Van Winkle-Munning Co., 104 F. 2d 856 (1939, 4th).

[7] *Id.*

[8] U.S. Const. art. III.

[9] Aetna Life Insurance Company of Hartford, Conn. v. Haworth, 300 U.S. 227; 57 S. Ct. 461 (1937).

[10] *Supra* note 6, p. 860.

the action; the declaratory plaintiff and the party operating under the patent. The declaratory plaintiff either initiates the action himself or counterclaims in an infringement action brought against him by the party operating under the patent.

Courts, in determining whether an actual controversy exists, normally consider two basic elements:

(1) The position of the declaratory plaintiff and whether he has the requisite "interest" under the patent laws; and

(2) The nature and sufficiency of the threat made against him. A third element, the party making the threat and whether his action can be attributed to the patent owner, had been at issue in several cases.[11]

In general terms, if the declaratory plaintiff is found to have sufficient interest under the patent laws the court will determine whether there is an actual controversy by looking to see if a sufficient threat has been made against him by the party operating under the patent. The order of events is important and oftentimes crucial in the finding of a controversy. If the threat is made prior to the declaratory plaintiff having a proper interest under the patent laws no actual controversy exists.[12] Moreover, the threat must have been made before suit is filed by the declaratory plaintiff.[13]

*Position of the Declaratory Plaintiff*

Reviewing what was mentioned above, when a sufficient threat is made against him, in order to be able to initiate an action under the Act the declaratory plaintiff must have such an interest under the patent laws that an actual controversy exists. "The plaintiff must set up some 'right, title, or interest under the patent laws,[14] or at least make it appear that some right or privilege will be defeated by one construction, or sustained by the opposite construction of these laws.' "[15] A test with the result being unpredictable and uncertain, to say the least.

At first the courts required the alleged infringer to show he had been engaged in the "actual manufacture, use or sale of the invention"

[11] See Hook v. Hook & Ackerman, 187 F. 2d 52 (1951, 3rd).

[12] Technical Tape Company v. Minnesota Mining & Mfg. Co., 200 F. 2d 876 (1952, 2nd).

[13] Henry L. Crowly & Co. v. Philips Laboratories, 104 F. Supp. 940 (1952, S.D.N.Y.).

[14] Muskegon Piston Ring Company v. Olson, 307 F. 2d 85 (1952, 6th).

[15] Aralac, Inc. v. Hat Corporation of America, 166 F. 2d 286 (1948, 3rd).

before he could bring suit under the Act.[16] Now, it is sufficient if the declaratory plaintiff has an immediate intention or ability to engage in such conduct,[17] or is about to take some action prejudicial to the interests of the patentee.[18]

Such language, however, is only a guideline for determining whether a case or controversy exists. Resourceful patent attorneys will invariably study the existing case law and attempt to come as close to the decisional boundary as possible in protecting and furthering the interests of their clients. Guidelines are where the person interpreting the cases thinks they are, with courts oftentimes having the last say.

A party who wishes to enter a commercial area and is unsure as to whether his conduct will infringe a patent, or who thinks the patent or patents covering the area are invalid, can inquire of the patentee as to whether the conduct is infringing.[19] If the patent appears weak and has a good chance of being held invalid in a court test, the inquiring party, in most cases, would hope to extract a threat from the patentee. "The fact that plaintiff may have made its [product] for the purpose of provoking a lawsuit does not in itself require a holding of no justiciable controversy."[20]

Once such an inquiry is made to the patentee, the next step is within his control. He can either remain silent, inform the inquirer as to whether his conduct is considered infringing, or immediately file suit if the conduct is considered to be infringing. If the first alternative is chosen by the patentee, no action can be taken by the declaratory plaintiff other than engaging in the conduct he had inquired about. If the patentee decides to sue later, he can collect damages only from the date the alleged infringer was warned that his conduct was considered to be infringing.[21] If the second alternative is chosen by the patentee and he makes a sufficient threat against the inquirer, the latter party can then file suit under the Act for a determination of whether the patent is valid and/or infringed. Thirdly, if the patentee files suit for infringement, the inquirer can counterclaim for a declaration of invalidity. Imperative in the latter two alternatives is the declaratory plaintiff having been engaged in sufficient conduct or preparation to give him an "interest" under the patent laws.

With regard to the equities involved in these situations, the more

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[16] Zenie v. Miskend, 10 F. Supp. 779 (1935, S.D.N.Y.).
[17] *Supra* note 15.
[18] Williams v. Twin City Company, 251 F. 2d 671 (1957, 9th).
[19] Clair v. Kaster, 148 F. 2d 644 (1945, 2nd).
[20] Wembly, Inc. v. Superba Cravats, Inc., 315 F. 2d 87 (1963, 2nd).
[21] 35 U.S.C.A. § 287.

liberally the Act is construed in the finding of sufficient conduct by the declaratory plaintiff, the easier it is for patent holders to be subjected to unjustified assaults on their patents. Balanced against that interest, however, is the consideration that an invalid patent should not be permitted to remain in the art as a scarecrow,[22] although such a consideration is not a "peremptory command" that the validity of all patents should be passed on by the courts.[23]

From the standpoint of the prospective infringer, on the other hand, the purpose of the Act was ". . . to avoid delay and accrual of damages against one uncertain of his rights and to promote an early adjudication of the controversy between the parties without waiting until one of them should see fit to begin suit for coercive relief after damages had accrued."[24]

In a recent case in the Second Circuit, a good example of not carrying liberal interpretation of the Act to an extreme was shown. In *Wembly, Inc.* v. *Superba Cravats, Inc.*,[25] the plaintiff made a single necktie and submitted it to the defendant-patentee for a determination of infringement. After the defendant responded by stating that the tie was covered by its patent, plaintiff filed suit for a declaration that defendant's patent was invalid and not infringed. The court held that the plaintiff did not show itself to be in the proper position or to have the proper standing to challenge defendant's patent.

Such a decision, however, cannot with easy predictability be equated to a fact situation in other commercial areas. "Quantitative comparisons of activities . . . are hardly profitable since ability or potential varies from product to product and industry to industry."[26]

The court in *Wembly* enunciated a test couched in stronger language than that mentioned above as to whether a declaratory plaintiff's conduct is sufficient to show "interest" under the patent laws. According to *Wembly,* "Major stress should be placed on the 'definite' intention of the plaintiff to take 'immediate' action to utilize its potential and this intention should be 'evident' from the preparatory steps outlined in its complaint."[27] Such strong language was not necessary by the court to reach its result. Plaintiff's conduct clearly was not sufficient under the previously mentioned tests.

Under the *Wembly* test, intent is not enough, nor is the ability to

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[22] Bresnick v. United States Vitamin Corporation, 139 F. 2d 239 (1943, 2nd).
[23] Brisk Waterproofing Co. v. A. Belanger & Sons, Inc., 209 F. 2d 169 (1954, 1st).
[24] Davis v. American Foundary Equipment Co., 94 F. 2d 442.
[25] *Supra* note 20.
[26] *Id.*, p. 91.
[27] *Id.*

engage in the allegedly infringing conduct, or both—the declaratory plaintiff must intend to take immediate action to utilize its potential after having taken sufficient preparatory steps. Although this test is literally more stringent than those stated earlier by courts with regard to the sufficiency of prospective action, the difference seems more apparent than real. Courts, it is submitted, will continue to balance the interests and attempt to arrive at a just result.

*Sufficient Threat*

Another essential element in the jurisdictional requirement of "actual controversy" is a sufficient threat levied against the declaratory plaintiff. Most cases have dealt with this subject by determining whether a sufficient "charge of infringement" has been made by the patentee against the declaratory plaintiff. Inherent in such a charge, however, is the threat of an infringement suit to be filed against the alleged infringing party. As will be illustrated, actual controversies have been found where no direct charge of infringement has been made to the declaratory plaintiff. Rather, a threat of suit has been implied from words directed toward customers of the declaratory plaintiff. It is submitted, therefore, that "sufficient threat" is the more appropriate term for this discussion about whether an actual controversy does exist.

As mentioned above, the Act was passed to prevent abusive conduct inflicted by patentees against parties allegedly engaged in infringing conduct. Before the Act a patentee could maintain a barrage of threats of infringement suits against an alleged infringer without subjecting his patent to a court test for validity. The attention of the most recent commentators on the subject of declaratory actions in patent suits has focused on the question, What is required for a sufficient threat and whether the pendulum of decisions has swung too high on the side of the threatened party, i.e. whether not enough of a threat is now required before an actual controversy can be found.[28]

"There can be no doubt that an 'actual controversy' does not exist until the patentee makes some claim that his patent is being infringed. The claim need not be formally asserted, nor should it be necessary that notice be given directly to the plaintiff."[29] After stating this

[28] Whinston, "Justiciable Controversy Under the Judgment Act—Federal Declaratory Recent Developments in Patent Cases," (sic) *Journal of the Patent Office Society*, Vol. 43 (August 1961).

[29] *Supra* note 5.

principle, the court in *Tremond Co.* v. *Schering Corporation,*[30] observed that defendant's notice in a trade journal, although "craftily phrased,"[31] did threaten plaintiff's customers with suits for contributory infringement if they purchased plaintiff's product. The court then held that such threats made against plaintiff's customers were indeed threats of action against the plaintiff, which, in turn, amounted to an actual controversy. The end result of such a finding was further development of the doctrine that a charge of infringement may be implied, thereby constituting a sufficient threat to the declaratory plaintiff.

*Tremond* thus reflected the growing attitude of courts at that time that " . . . the Act should have a liberal interpretation, bearing in mind its remedial character and the legislative intent."[32]

Another widely cited decision, *Dewey & Almy Chemical Company* v. *American Anode, Inc.,*[33] extended the doctrine to what perhaps is the high watermark of the Act's liberal interpretation. There, despite the fact that defendant-patentee had no knowledge, until a suit under the Act was filed against him, that the plaintiff was practicing the patented process, the court found an actual controversy. A sufficient threat was implied from an infringement suit filed by the defendant against another company which used the same process practised by the plaintiff and covered by defendant's patent.

As a result of these and other liberal interpretations of the Act, several commentators have observed that ". . . a patentee, in order to avoid declaratory litigation, is compelled to proceed cautiously with regard to any statements defining the scope and effect of his patent."[34] "The most casual of correspondence or innocuous of advertisements can still plunge the unwary patentee into defense of his patent."[35]

The preceding cases are representative of the most liberal findings on the question of sufficient threat. However, such interpretations of the Act, in fairness to the relative positions of the parties, cannot be considered extreme. Before a sufficient threat can be found, the patentee must take affirmative action of some nature. Although the court in *Dewey & Almy* went too far in finding such a threat, a communicated threat is evident from the other cases.

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[30] *Id.*

[31] *Id.*, p. 703.

[32] Alfred Hoffman, Inc. v. Knitting Machines Corp., 123 F. 2d 458 (1941, 3rd).

[33] 137 F. 2d 68 (1943, 3rd).

[34] Soffen, "Justiciable Controversy Under the Federal Declaratory Judgment Act and the Exercise of Patent Rights," *The George Washington Law Review,* Vol. 22 p. 74.

[35] *Supra* note 28, p. 573.

The exclusionary right to the invention embodied in the patent places the patentee in a unique position. He may prohibit other parties from engaging in activity covered by the boundaries of the patent. In exchange for this monopoly, the patentee must make full disclosure of his invention to the public. Moreover, he cannot, by any means whatsoever, expand the boundaries of his patent or use the patent as a means of intimidation against other parties operating in the same general area that is covered by the patent. Therefore, any action by the patentee which would have the effect of a threat that an infringement suit may be filed against that other party should be viewed suspiciously by the courts.

The finding of a sufficient threat, however, should be limited to situations where action by the patentee could reasonably be interpreted as having been directly or indirectly made to the declaratory plaintiff.

Since 1963, a series of cases in the 7th Circuit has discussed the question of sufficient threat, along with several other interesting points, and has developed limitations on extremely liberal interpretations of the Act, although the exact boundaries of the court's decisions are in need of clarification.

In *National Coupling Co.* v. *Press-Seal Gasket Corp.*,[36] defendant charged in a letter to one of plaintiff's customers that the patent in question was infringed by the customer's use of plaintiff's gasket in concrete pipe. Plaintiff filed a declaratory judgment action for noninfringement and invalidity of the patent. Defendant claimed that there was no jurisdiction under the patent laws because plaintiff's gasket fell within an excluded class of infringing articles under 35 U.S.C.A. Section 271 (c). The court, in holding that that defense was available only to plaintiff as means to vindicate the defendant's charge of contributory infringement, found a sufficient threat for jurisdiction under the patent laws.

The court distinguished *Aralac, Inc.* v. *Hat Corporation of America*,[37] where fibers produced and sold by the declaratory plaintiff were standard articles of commerce and within the excluded class of infringing articles under 35 U.S.C.A. Section 271 (c). There, no controversy between the parties was found. Although plaintiff's customers allegedly infringed defendant's patent, which covered the process of combining such fibers as plaintiff's with fur fibers to form hats or hat materials, the charge of infringement was made against the

[36] 323 F. 2d 629 (1963, 7th).

[37] *Supra* note 15.

process with which plaintiff had no connection instead of the product sold by him.

In *National Coupling,* however, the court read defendant's letter[38] as stating that ". . . but for the use of National Coupling's gasket there would be no infringement."[39] The court's decision, it is submitted, begs the question of whether there was an actual charge of infringement. The letter warned that if the customer incorporated the gasket into the pipe, the combination of all the elements is infringing. No mention was made that plaintiff's product infringed the patent or that plaintiff itself had infringed in any manner. The threat, it appears, was directed to the customer who was incorporating the gasket into the infringing combination. Thus, no charge of infringement or threat of suit had been directly or indirectly made to the declaratory plaintiff, although the court assumed that there had been one.

The possible scope of *National Coupling,* however, was limited somewhat by *Walker Process Equipment, Inc.* v. *FMC Corporation.*[40] There, plaintiff alleged that defendant-patentee had attempted to persuade prospective customers of manufacturers competing with defendant, of which plaintiff was one, that the customers should use defendant's equipment in accordance with its patented process, and if they should use equipment of a competing manufacturer they should purchase a license from defendant in order to protect themselves from possible infringement. The court, over a dissent by Judge Swygart, who wrote the court's opinion in *National Coupling,* affirmed a holding of no controversy, and found that there were no "viable" charges of infringement by defendant against plaintiff or its customers.

The court emphasized that a declaratory judgment action cannot just be based on a patent owner's charges against another for infringement; "the fundamental question is whether the patent owner had made *viable* charges of infringement."[41] (Emphasis added.) Again the court quoted from *Aralac,* but this time for the stronger proposition that a plaintiff is precluded from sustaining a declaratory judgment action ". . . against a patent owner unless plaintiff is in fact accused of infringement by the patent owner."[42]

Here, plaintiff's equipment was capable of use in processes covered

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[38] *Supra* note 36. "We [Press-Seal's attorney] have advised our client that in our opinion, the above gasket when installed on concrete pipe . . . and when the joint is completely assembled, constitutes a clear cut infringement of the above reissue patent. . . ."

[39] *Id.,* p. 631.

[40] 356 F. 2d 449 (1966, 7th).

[41] *Id.,* p. 451.

[42] *Id.*

by defendant's patent, but the equipment did not need to be so used; it had other uses that were noninfringing. The only interest by the plaintiff concerning the patent was in its indemnity agreements with possible infringers and possible loss of business. These mere economic interests, in the absence of a viable charge of infringement, were not sufficient for the court to permit jurisdiction under the Act.

The court cursorily distinguished *National Coupling* as a case where a letter was sent to one of plaintiff's customers charging plaintiff with infringement; defendant could not forestall a determination by resorting to 35 U.S.C.A., Section 271 (c), as a defense. In the instant case, there was no viable charge of infringement found, only the "action of a patent owner cautioning possible infringers and offering licenses to them."[43] Thus, the implication of *National Coupling* that a sufficient threat could be found in the absence of a possible action by the patentee against the declaratory plaintiff for infringement was avoided.

Next in this line of cases is *Sticker Industrial Supply Corp.* v. *Blaw-Knox Co.*,[44] an extremely interesting case, where, in 1961, defendant's patent counsel wrote to plaintiff's president and informed him that if a patent were to issue to Boynton, defendant's installations would infringe the patent unless a license were granted, and that the right of plaintiff's customers to use plaintiff's ladle feeders would remain "to be settled." The patent subsequently issued to Boynton, and in 1964, defendant sent notices to its customers that they would need a license under the patent which had been assigned exclusively to the defendant. The court found that plaintiff's complaint, which alleged the above facts, and its affidavits, which showed a resulting loss of business, established that plaintiff had a "reasonable apprehension" of liability to itself and its customers, thereby constituting an actual controversy.

The court distinguished *Walker Process* as being a case where defendant merely cautioned possible infringers and offered a license to them. Here, however, the court read the complaint as showing a charge of infringement by defendant against plaintiff. The primary basis for the court's holding was the plaintiff's product was *not capable* of a noninfringing use, but was custom built for use in the patented process. It had to be used in an infringing manner under the Boynton patent, whereas in *Walker Process* plaintiff's equipment was capable of noninfringing uses.

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[43] *Id.*, p. 452.

[44] 367 F. 2d 744 (1966, 7th).

Although, in view of the letters and the facts surrounding the manufacture and use of plaintiff's equipment, a threat did exist, whether that threat was sufficient for a finding of an actual controversy is another question indeed. The court had to hedge on its definite language in *Walker Process* that a viable charge of infringement must have been made. Here, the 1961 letter was sent to plaintiff before the patent in question issued. With no patent there can be no charge of infringement. The 1964 letter was sent only to defendant's customers, thereby constituting no threat to plaintiff. Thus, there was no basis for holding that a viable charge of infringement had been made against the plaintiff, assuming, of course, that by using the word "viable" the court meant that at the time a sufficient threat is made against the declaratory plaintiff the patentee could have instituted an infringement action. However, when considering the 1961 letter along with the patent which subsequently issued, plaintiff did indeed have a "reasonable apprehension of liability." Thus, in holding that an actual controversy did exist, the court extended the jurisdictional boundaries far beyond those set in *Walker Process* and returned to the liberal interpretation of *National Coupling.*

In the most recent case in this series, *American Needle and Novelty Co.* v. *Schuessler Knitting Mills, Inc.*,[45] the court recognized the implications of the broad language of *Sticker* and attempted to clarify and limit somewhat the rule stated there. In *American Needle* the court found no "reasonable apprehension of liability" where defendant's attorney wrote a letter to plaintiff which stated that plaintiff's product "may conflict" with defendant's patent and referred to an earlier conversation between the parties whereby plaintiff claimed his product was noninfringing and agreed to supply a sample of the product to the defendant. In another letter by defendant, this to Sears and Roebuck Company whom plaintiff had voluntarily indemnified from liability for infringement after Sears became a customer of plaintiff's, defendant asked for a sample of plaintiff's product and pointed out that another company had been licensed under defendant's patent and that plaintiff's product was "very similar" to the other company's product.

Although the court applied the liberal test of *Sticker,* it attempted to restrict the broad implications of that test and observed:

> The owner of a patent should have the privilege of making a fair investigation as to the possible infringement of his patent without calling down on his head the undertaking of a defense of an

[45] 379 F. 2d 376 (1967, 7th).

> expensive and burdensome declaratory judgment suit alleging invalidity and non-infringement.[46]

This dictum is sound policy for courts to follow in their determinations with regard to whether an actual controversy exists in the absence of a viable charge of infringement. However, as concluded in the preceding discussion about the position of the declaratory plaintiff, courts will have to weigh the opposing interests and attempt to arrive at an equitable result. Where each case turns on its own particular fact situation, the formulation of a precise test is virtually impossible, especially when words such as "reasonable apprehension" can be considered a clarification. It is submitted, therefore, that a patent should be subjected to a court test of its validity if an alleged infringer is under a "reasonable apprehension" that an infringement action will be brought against him. However, to be sure that a just result is found, court would be well advised to consider seriously the dictum in *American Needle* before finding a sufficient threat in the absence of a viable charge of infringement.

## Conclusion

The Declaratory Judgments Act was passed to prevent the possibility of patent holders using their patents in an intimidating and oppressive manner against parties operating in the general area covered by the patent. As is usually the case, once a remedy to alleviate an inequitable situation is created, people will test the boundaries and try to use the new tool to their best advantage. As shown in the preceding discussion, this has been especially noticeable in patent suits arising under the Act.

The jurisdictional boundaries under the Act are still in the process of being formulated. General principles have evolved, but the liberal scope of jurisdiction under the Act has yet to be determined.

Because patent actions under the Act cover such a broad range of products and industries, a definite, all-encompassing test is practically impossible to develop. For this reason, many of the varied holdings under the Act appear inconsistent. These decisions, especially the ones involving the vague outer boundaries of the Act, perhaps can be explained by the courts striving to balance the equities rather than looking for elements mentioned in previous cases, which were pointed out as being essential for jurisdiction.

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[46] *Id.*, p. 379.

Although such a basis is, at times, unpredictable, it appears to be the best way to approach the problem. In view of the issues, their nature, and the varied fact situations arising under the Act, it is submitted that a rule of reasonable activity should be adopted, keeping in mind the positions of all parties involved. A vague test, to be certain, but essential to insure that justice is served.

## SELECTED TRANSLATIONS

From time to time, in this section, we make available to our readers translations of original, distinctive or outstanding articles, reports or notes relating to The PTC Research Institute's fields of interest.

# East-West Trade and Industrial Property

YVES PLASSERAUD*

### BACKGROUND

IN THE COURSE OF RECENT YEARS numerous agreements have been concluded between Western firms and State enterprises of Eastern Europe. This has attracted the attention of the business world to a rather new phenomenon: The increase of East-West exchanges not only in the field of industrial goods but also in the field of industrial technology. The expanding commercialism of the socialist countries has been influenced by many factors, the most important being the political "détente."

After the reconstruction or the "take-off" of their economies, the majority of these countries have now reached a higher level of

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development. Since the completion of the initial period of industrialization, there has been a shifting of economic priorities. The production of consumer goods is soaring, and, everywhere, the concern for better quality and for adaptation of production to the demands of the market is being added to the merely quantitative objectives. Moreover, these requirements have become paramount in those countries attempting to increase their outlets in the Western markets and whose products must be competitive both with regard to price and to quality.

These two aims (quality and adaptation to needs) have been largely neglected since the end of the Second World War as has the development of some sectors of advanced technology (electronics for instance), so that the East European countries are obliged to follow the example of the Western countries.

As far as the acquisition of Western technology is concerned, the policy of the socialist countries has recently changed. For many years, these countries have remained isolated both politically and economically behind hermetically closed borders. Their relations with Western countries have been marginal and negotiated on a strictly bilateral basis. In the field in which we are interested, the acknowledged practice was generally to draw "inspiration" from all good technical ideas, without regard to their origin or consideration for the rights of their inventors who, at that time, did not care to ensure legal protection in these countries. In this respect, the well-known example of the American "flying fortresses," dismantled and faithfully copied by the Soviets, is significant.

Since the inventions were not protected by industrial property rights, these "copies" were not, in the strict meaning of the term, "infringements" and generally were not detected abroad because of the veil of mystery which then enveloped all of Eastern Europe. Though, in recent years, communications have for all practical purposes eliminated this "veil," the element of distrust acquired in the West at that time often persists.

The use of foreign technology without any license, as interesting as it may have been considered during the initial economic "take off," has, for several reasons, proved to be less and less beneficial in the long run.

On the one hand, today's inventions are of a continually increasing technical sophistication, and their recreation from samples or from studies of patent specifications is becoming more and more difficult without the corresponding know-how. Moreover, these copies have become less interesting because of the time and expense necessarily

involved. Apart from industrial espionage, this know-how can be acquired by third parties solely from the owner and exclusively on a voluntary basis. On the other hand, as the socialist countries attempt to increase their exports to the Western world and obtain foreign currency, it would be prejudicial to their interests to sell infringing goods.

Not only is the cost of buying immediately usable equipment or goods in foreign currency prohibitive, but the latter negates one of the golden rules of the Eastern economies—the insurance of full employment. This is a supplementary reason why these countries have decided to buy licenses of patents or know-how belonging to foreigners whenever there is a need for modern technology and whenever their own research would be more difficult and expensive.

Finally, anxious to secure themselves an international position in harmony with the size of their industry, the socialist countries, especially the Soviet Union, seek to overcome their traditionally bad reputation in the field of industrial property. The latter is being accomplished by an attempt to respect scrupulously patents belonging to foreigners.

Such a radical change with regard both to the economic options and to the acquisition of industrial technology would undoubtedly have been practically impossible within the former economic structures of the socialist countries dominated as they were by rigid and rigorously enforced planning. This is one of the reasons why several economists (Libermann, Atlas, Trapeznikow in the USSR; O. Sik in Czechoslovakia; C. Nagy in Hungary; O. Lange in Poland, for instance) have advocated larger autonomy for the enterprises, as well as more initiative and responsibility, and have proposed to restore some kind of competition as an incentive in the economy. As a matter of fact, since the economic reform has been put into effect, the State enterprises of the socialist countries have been granted new prerogatives, especially in respect to their choice of production technology and management of their foreign commercial relations.

It thus seems to be an established fact that a flow of East-West exchanges has recently been created in the field of technological knowledge. There is an increasing interest being shown for this kind of trade which had, in the past, been neglected by Westerners because of their distrust of Eastern partners and their insufficient knowledge of the available trade opportunities. Moreover, the prospects of an increase of these exchanges seems to be confirmed by corroborating indications of an incontestable will to eliminate the barriers which, for

many years, prevented this evolution. On the Eastern side one may cite the adherence, as members or observers, of several socialist countries (Poland, Czechoslovakia) to international commercial and monetary agreements (i.e., General Agreement on Tariffs and Trade; International Monetary Fund) and the efforts expended toward achieving the convertibility of the main currencies of the group. As for the Western countries, their governments have increased the exchanges of trade missions while simultaneously eliminating many of their import quotas. Moreover, there is an increasing availability of hard currencies in Eastern countries, which is primarily the result of their exporting manufactured products and developing tourism.

It thus becomes a worthwhile investment for Western enterprises, desiring outlets in the Eastern European markets, to file applications for industrial property rights and particularly for patents. As a matter of fact, these rights can serve as a basis for beneficial agreements with the State enterprises of these countries as the observation, as well as the fulfillment of contractual obligations, is secured both legally and practically. Nevertheless, the working of patents cannot be negotiated exactly in the same manner in socialist countries as in Western countries.

In countries with capitalist economies, several ways are available to patent owners who want to take advantage of their exclusivity in a foreign country: The sale of the product manufactured according to the patent, on the market of that country; the granting of a license to a local firm; or, and this is often the most beneficial solution, the establishment of a subsidiary or some other form of direct investment for the purpose of working the patent in that country.

In socialist countries, business is conducted in a rather different manner. Because of the socialist ownership of the means of production and the central planning of the economy, the direct, or through a subsidiary, manner of utilizing patents is quite impossible. Furthermore, as the State monopolizes foreign trade, a corollary of central planning, all imports of goods and purchases of licenses must be accomplished exclusively through particular channels.

As a general rule and from several points of view, the "purchasing" of foreign technology is an imperative matter for a socialist country. Insofar as this purchase aims at developing an economic sector, it is obviously essential to verify that the technology is the best on the current market. Furthermore, as the high cost in foreign currency of this purchase has to be borne by the State, it is understandable that a strict check must be carried out to determine if the need for the

contemplated license is real and that the expected benefits will be satisfactory. These two requirements will explain, on the one hand, why the final decision comes from specialized organizations, often at a very high level, and, on the other hand, why the negotiations are sometimes long and difficult. Nevertheless, the licensing of a patent,[1] or possibly know-how, is generally of considerable interest to Westerners.

## Foreign Trade Organizations and Commercial Negotiations

The Soviet Union was the first country to organize the State monopoly of its foreign trade, but its example was soon followed by the countries of Eastern Europe after the establishment of the Peoples' democracies. In each country, and for most sectors of the economy, State organizations were created for foreign trade and given the monopoly of transactions with foreign countries. Consequently, the enterprises were deprived of a large part of their autonomy in the field of international commerce.

Such organizations have been established for activities as varied as the buying and selling of petroleum products, agricultural equipment or even art objects and antiques. For many years, however, the exchanges of intellectual rights have remained very limited for the above-mentioned reasons. It is only recently that specialized organizations have been created to handle these exchanges; previously, the responsibility for this type of commerce was assumed by various foreign trade organizations in charge of industrial branches. The latter consequently entered into agreements regarding both the supply of goods and licensing of the corresponding industrial property rights.

The newly created organizations whose names are "Licencintorg" in the USSR; "Polytechna" in Czechoslovakia; "Technoimpex" in Bulgaria; "Polservice" in Poland; and "Licencia" in Hungary, have been provided with adequate means of transaction and with qualified staffs specializing in the negotiation of agreements relating only to industrial property rights ("naked licenses"). The above-mentioned "industrial" foreign trade organizations remain competent with regard to agreements relating simultaneously to both products and industrial property rights.

All these organizations, which generally operate as buyers as well as

[1] We will limit ourselves to the case of patents, for it is comparatively rare that a foreigner is the owner of an author's certificate. Moreover, in this latter case, the right of utilization does not belong to him.

sellers, have correspondents in foreign countries, the latter supplying contacts with possible trade partners. This part is frequently played by the commercial representatives of the embassies, but the socialist countries have also set up companies, in accordance with the relevant national law, which are specialized in this type of negotiation. These companies function independently but they often are aided by the commercial attachés of the embassies.

In practice, negotiations generally take place in the following manner: An enterprise of a socialist country authorized to give or to take a patent or know-how license abroad (the authorizations for licenses to be taken are often given by the State plan) contacts the relevant foreign trade organization. The latter informs its correspondents abroad to contact the foreign firm or firms concerned, and in this manner the possible partners are able to have a direct line of communication.

Western enterprises may also, on their own initiative, offer the foreign trade organizations of the socialist countries their inventions by sending precise and detailed technical notes regarding that which they wish to negotiate. In this manner, such negotiations may be accomplished without an intermediary. Such enterprises more and more frequently group together in order to promote their technology to the competent authorities of the Eastern countries. The latter are higher institutions responsible for the authorization of licenses (for example the State Committee for Science and Technology in the USSR) or they may be large enterprises interested in the technology concerned and endowed with a power of decision in these matters, or, at least, with the right to negotiate. In this connection, the result has been that the purchasing power of the socialist countries has been well publicized, especially in German, English and French, which allows Westerners to be increasingly informed regarding the growth of any sectors of the markets in the Eastern countries.

Negotiations following the initial contact are usually conducted by foreign trade organizations. Either they sign the agreement in their own name giving the enterprises of the country (one, several or all of them) the right to use the licensed technology, or they simply aid and advise the contracting enterprises which sign the agreement and are, in actuality, the real licensees. In this case, the foreign trade organization merely acts as a counsel to the State enterprise and countersigns the agreement in order to assure that the agreement of the latter takes into consideration not only its own profit but also the national interest.

However, the State enterprise which has entered the agreement is

solely responsible for the fulfillment of its contractual obligation to the foreign partner. On the contrary, when the foreign trade organization itself signs the agreement, it is alone responsible for the respect of said agreement by the enterprises which benefit from the license. The organization may discipline these enterprises through all current legal channels, that is to say, essentially, the procedure of State arbitration.[2]

## Impact of Economic Reform

Until very recently, all exchanges of licenses took place through foreign trade organizations according to the procedure which has just been explained. These organizations alone, which depend upon the respective Ministries of Foreign Trade, could obtain from the latter the necessary authorization for negotiating agreements and securing payments in convertible currencies of the sums provided for in any given agreement.

Such a centralized system, which could be perfectly understood within the framework of a strictly planned economy, is now, along with economic reform, being reconsidered.

Managers of enterprises in Eastern Europe, pressured by the imperatives of competition, frequently complain that their initiatives and actions are hindered and delayed by the compulsory agents placed between their partners and themselves. Moreover, they are compelled to submit to numerous administrative checks and formalities.

Westerners are frequently deterred by the length and bureaucratic aspects of the negotiations and find that, due to the numerous negotiators on the socialist side (those of the foreign trade organizations plus those of the enterprises), each one can take refuge behind arguments developed by the other. Moreover, there is the ever-present temptation to hide behind the authority of superiors in order to avoid making a particular decision. Consequently, the initiators of economic reforms have been led to contemplate a larger margin of autonomy for the enterprises in this field and to authorize some of them to make direct contact with foreign firms, to negotiate, and even to sign agreements with these firms without any agent.

In addition, however, to the theoretical and practical problems raised by the extension of rights of the enterprises, there remains a financial hindrance to the liberalization of their commercial relations

[2] This procedure, which is characteristic of the socialist countries, confides the solution of disputes between socialist organizations to specialized arbitration commissions, thus avoiding legal proceedings.

with foreign partners. As a matter of fact, to be able to enter as the buyer into an international agreement, the State enterprises of socialist countries must have a certain amount of convertible foreign currencies at their disposal, that is to say, have an account in the State bank for foreign trade. Until recently, this possibility was out of the question, but the idea, difficult as it may be to enact as it requires that the enterprises have their own sources of currencies, is beginning to make progress.

A new system of foreign trade is thus at present being progressively initiated in several countries of Eastern Europe, and especially in Eastern Germany and Hungary. It is interesting to note that such a system has been operating for several years in Yugoslavia where enterprises were granted a large autonomy after the institution of the system of "self-management." Foreign trade organizations will thus, in the future, have their functions progressively modified as the economic reform gradually permeates each country. In order to survive the rather swift loss of their role as compulsory agent, foreign trade organizations must adapt themselves to the new conditions. They will have to change their methods of working in order to make themselves indispensable to the enterprises which, although legally able to conduct direct negotiations with foreign firms, will in fact be relatively inexperienced in the difficulties of international trade. Consequently, the foreign trade organizations, with their experience, means of action and network of foreign representatives, will, although their participation will no longer be legally compulsory, probably often be chosen as negotiators.

It is likely, therefore, that the foreign trade organizations will, in the future of the socialist countries, be called upon to play a part very similar to the one played in the West by counsels in foreign trade.

## Agreements

The licensing of industrial property rights often is an accessory clause in agreements relating to the supply of industrial equipment. Although the present article is devoted to contracts relating only to industrial property rights, the following developments apply to the "mixed" agreements as well.

The agreements licensing technical information can be divided into three categories: those relating to the license or the assignment of a patent (or utility model), those relating to the transfer of know-how, and those simultaneously relating to both.

Needless to say, in the field of industrial technology, a patent is the best possible asset for the Westerner who wishes to negotiate with a socialist country. Nevertheless, even know-how alone is of considerable interest for State enterprises of these countries and therefore this type of agreement is often requested.

However, agreements granting licenses have, thus far, come less frequently from Western firms to socialist enterprises, the former preferring outright sale of the equipment and the accompanying licenses of patents and know-how for a lump sum which is generally rather high. They can thus reap profit immediately from the negotiation and then take no further interest in the use subsequently made of the subject of the agreement. This technique is not, however, quite satisfactory. It deprives the seller not only of the benefit of continuous cooperation with the buyer, but it also negates any opportunity of supplying new equipment or of improving technology through the exchange of ideas. Furthermore, the buyers in the socialist countries find this process both too onerous and too summary.

The obstacles to the granting of licenses to the socialist countries which existed in the past have disappeared. Though licenses are still generally taken for all the enterprises concerned in the country, the methods of their remuneration by staggered royalty payments, calculated as a percentage of the whole production of these enterprises, is often accepted by the negotiators of Eastern Europe. Moreover, conditions for checking this production can be provided for in the agreements. All kinds of agreements can actually be negotiated and the socialist countries generally stress the fact that their practice in this matter is the same as that of Western countries.

With regard to the exchange of technical documentation between the socialist countries within the COMECON, the distrust of Westerners does not seem to be justified. Westerners often fear that the technology they have licensed to one or several enterprises of a Member State of the COMECON will be transferred to the others. In this respect, two cases should be distinguished: Either that technology is protected by patents in all the socialist countries and its use depends upon the authorization of the patentee, or it is not patented and, therefore, may be freely exploited by anybody. Nevertheless, agreements relating to nonpatented technical information are often concluded separately by each member country of the COMECON.

It should also be noted that it is always possible to introduce into the agreement a clause relating to the territorial extent of the license, limiting the license to a particular country.

## Negotiations

The negotiations, which are conducted by the representatives of the foreign trade organization or of another official organization, may be long and arduous. The negotiators of the Eastern countries are generally competent and do not commit themselves lightly. As they are often numerous and highly specialized, the drafting of the agreement is, as a rule, very elaborate and aims at providing for all eventualities.

Those experienced in these matters acknowledge that the communist organizations scrupulously comply with the clauses of a well-drafted agreement. It is generally acknowledged that an agreement lacking in precision risks being "misinterpreted" and that, in order to avoid any subsequent misunderstandings and to establish the best basis for collaboration, the partners must leave nothing to chance.

Standard agreements are generally used as a guide in the negotiations and many of them have been drafted according to Western patterns. Nevertheless, the standard clauses are not rigid and can be modified according to the respective wishes of the parties concerned.

There are well-known examples of excellent East-West cooperation, even in the absence of any formal agreement, on the mere basis of reciprocal confidence. However, for a large majority of them, these informal relations developed following former agreements drafted in a rigorous legal form and executed between the two parties. With regard to the contents of the agreement, most of the clauses are similar to those known in the West. Nevertheless, a few of them are specific to the socialist countries and do not always suit the Western parties. We emphasize the fact that everything can and should be discussed as often as possible to eliminate the clauses which appear unsatisfactory.

One of the main difficulties often faced by Western negotiators is the problem of the payment of royalties. As Eastern countries are relatively poor in convertible currencies and wish to find outlets for their national production, they generally attempt to obtain authorization to pay for licenses either in their own currency, in kind, by subcontracting or any other form of industrial cooperation. However, cash payment in convertible currencies is becoming more and more frequent. In such cases, a lump sum is often proposed for obvious reasons of convenience and also because some countries undoubtedly prefer to avoid a check of the accounts and production of the State Enterprises implied by the payment of royalties. Royalty payments are, nevertheless, beginning to be accepted.

The agreements generally provide for the settlement of disputes by

the Arbitration Committee of a Chamber of Commerce, frequently the Chambers of Commerce of Paris (International Chamber of Commerce), Basel or Stockholm.

## Conclusion

The socialist countries, although newcomers to the international market of licenses, are now showing considerable interest in this trade, and their interests can only increase in the years to come. The recent developments in Hungary and Rumania, for example, support this view.

At present, it should be borne in mind that, despite the relatively small number of agreements made, Eastern negotiators are usually well informed on all the possible methods of negotiation. As it is to their benefit, Western industrialists will thus be well advised to regard these negotiations with particular attention and to conduct them with much care and patience. Under these conditions, exchanges of industrial property rights can be particularly beneficial for both parties. Numerous Western enterprises, big or small, already have, in recent years, established completely satisfactory relations with their counterparts from the East.

Nevertheless, before contacting and initiating negotiations with its possible Eastern partner, the Western enterprise should take steps to ensure the protection of its industrial property rights in the country concerned. Such protection, which is quite effective, presents, in addition to a commercial advantage, a legal guarantee for the Western party. It prevents the unauthorized use of the invention and thus facilitates the conclusion and correct execution of an agreement.

The possession of industrial property rights, and especially of patents, has a second and maybe greater advantage than the concession of a license. When the supply of industrial goods is contemplated the fact that a patent has been granted in their country for an invention incorporated in those goods often appears, in the eyes of the Eastern negotiators, as a kind of guarantee of utility. To a certain extent, they can and do take support from this guarantee in order to make their decision.

Furthermore, the publication of printed copies of patents in these countries is a real advertising aid as they will generally, by means of a recently established and thorough system of dissemination of the patent documents, be brought to the knowledge of the enterprises likely to be interested.

## APPENDIX

### Addresses of the Organizations for Negotiating Licenses

INDUSTRIALIMPORT
Dacia 13
Bucharest, Rumania

LICENCIA
Józef Nádór tér, 10
Budapest 5, Hungary

LICENCINTORG
V 420, Kakhovka Street, 31
Moscow, U.S.S.R.

PATENTCENTAR
5 Maj Jovina 21—P.O.B. 399
Belgrade, Yugoslavia

PATENTNAPISSARNA
Nicklošičeva
Ljubljana, Yugoslavia

POLSERVICE
Poznanska 15
Warsaw, Poland

POLYTECHNA
Václavské Nam. 8—P.O.B. 834
Prague, Czechoslovakia

TECHNOIMPEX
16, Lenin Square
Sofia, Bulgaria

ZENTRALES BÜRO FÜR INTERNATIONAL LIZENZHANDEL MINISTERIUM FÜR AUSSENHANDEL
Unter den Linden 44-60
108—Berlin, G.D.R. (East Germany)

## *Nurturing New Ideas: Legal Rights and Economic Roles*
### Now Available on Order

The Institute is pleased to announce that *Nurturing New Ideas: Legal Rights and Economic Roles,* a new book of selected major reports of the Institute, with extensions, has just come off the press.

To illuminate the role of industrial property in the past development, current operation, and future course of the enterprise systems of the United States and countries abroad, eminent inventors and distinguished specialists in economics, statistics, business management, sociology, law, and the physical sciences draw freely on their several disciplines in the articles and studies gathered in this book. Their contributions contain a great deal of otherwise inaccessible information on the practical aspects of protection and utilization of industrial property.

Designed for easy reference, the book makes Institute research on the many aspects of industrial property, including invention, patents, trademarks, technical know-how and trade secrets, and the relationship thereto of tax and antitrust laws and of trade practice, more generally available to the larger public as well as to patent law practitioners, industrial property specialists and students.

The price of the book, which is published by the Bureau of National Affairs, is $14.50. It may be ordered through BNA Books, 5615 Fishers Lane, Rockville, Maryland 20852.

## Special Conference of Invited Experts Scheduled on Air and Water Depollution: Roles of Industrial Property, Innovation, and Competition"

We are pleased to announce that the Institute has scheduled a Special Conference of Invited Experts to explore "Air and Water Depollution: Roles of Industrial Property, Innovation, and Competition."

This Special Conference will be held in March, 1970, in Washington, D.C. A limited number of experts will be invited as observers, in addition to the invited discussants.

One of the most pervasive problems facing the United States and other countries today is the control of the quality of our physical environment. This has become a critical national issue. Two major environmental concerns are air pollution and water pollution. Accordingly, the Institute is planning this Special Conference to consider ways and means to facilitate innovative solutions in these two areas. Emphasis will be given to the contributions of the patent and other industrial-intellectual property systems and antitrust factors involved in sanctioning cooperation among private parties.

The Conference will look into the new roles of industrial and intellectual property in technically based organizations seeking to meet the changing environmental needs, and into the position of the inventor in relation to such organizations. Key factors involved in coordination among government, industry and the universities and in cooperation among managers and technical men will be examined. The Special Conference is designed to provide a forum of experts to concentrate on the directions of air and water depollution solutions within the technological competence of the private entrepreneur.

## Draper Named 1969 Kettering Award Recipient

Charles Stark Draper, one of the world's leading space scientists, engaged in solving problems that range from guidance of a manned spacecraft to the moon to guidance and control of a winged craft boosted to the near reaches of space by a ten-story rocket, has been named THE CHARLES F. KETTERING AWARD recipient for 1969. The Award will be presented to Dr. Draper at the Institute's Fourteenth Annual Public Conference to be held at the Shoreham Hotel in Washington, D.C. on June 4-5, 1970.

Named in honor of the late Dr. Kettering, Chairman of the Board of the Charles F. Kettering Foundation and a Director and Research Consultant to the General Motors Corporation, the Award is presented annually by The PTC Research Institute of The George Washington University for outstanding work in research and education in the fields of invention, innovation, patents, trademarks, copyrights and related areas. Dr. Kettering aided in the formal establishment of the In-

stitute in 1954 and served as a member of its Advisory Council until his death in 1958.

Dr. Draper received a Bachelor of Arts degree in Psychology from Stanford University in 1922. He has three degrees from the Massachusetts Institute of Technology—B.S. in electro-chemical engineering, 1926; S.M. without specification of department, 1928; and Sc.D. in physics, 1938.

From an assistant professorship in the Department of Aeronautics and Astronautics at M.I.T. in 1935, Dr. Draper rose to full Professor, then Department Head and Institute Professor. As Director of the M.I.T. Instrumentation Laboratory, he led a team of 2,500 scientists, engineers and technicians devising guidance, navigation and control systems for airplanes, ships, satellites and spacecraft.

In 1961, at the request of the National Aeronautics and Space Administration, Dr. Draper and his associates undertook the task of designing the guidance-navigation system that would be used aboard the Apollo spacecraft, the vehicle destined to carry men to a moon landing and a safe return.

Dr. Draper has written extensively in the fields of instrumentation and control, and has served as consulting engineer to many aeronautical companies and instrument manufacturers. He holds a number of patents for measuring and control equipment.

Dr. Draper serves on the Advisory Council of The PTC Research Institute. He is also a member of several government science advisory groups and is chairman of the National Inventors Council. He is the president of the International Academy of Astronautics; an honorary fellow of the American Institute of Aeronautics and Astronautics and the Canadian Astronautical Society; an honorary lifetime member of the Instrument Society of America; an honorary member of the German Society for Guidance and Navigation; and a fellow of a number of other societies and associations.

Previous recipients of THE CHARLES F. KETTERING AWARD were: John M. Olin, honorary chairman of the board, Olin Mathieson Chemical Corporation—1968; Stephen P. Ladas, senior partner, Langner, Parry, Card & Langner—1967; Lawrence R. Hafstad, vice-president in charge, General Motors Research Laboratories—1966; David Sarnoff, former chairman of the board, RCA Corporation—1965; Edwin H. Land, president, Polaroid Corporation—1964; Giles S. Rich, Judge of the U.S. Court of Customs and Patent Appeals—1963; Joseph W. Barker, former chairman of the board, Research Corporation—1962; Vannevar Bush, past president, Carnegie Institution—1961; Jo. Baily Brown of Brown, Critchlow, Flick

& Peckham—1960; the late Frank A. Howard, chairman, Sloan-Kettering Institute for Cancer Research—1959; Robert C. Watson, former Commissioner of Patents—1958; S. Chesterfield Oppenheim, Professor Emeritus of Law, University of Michigan—1957.

## Institute Schedules Clinics on Trade Secrets and on Unfair Trade Practices Relating to Industrial-Intellectual Property

The Institute has scheduled a Clinic on Trade Secrets for February and a Clinic on Unfair Trade Practices Relating to Industrial-Intellectual Property for April. As in previous Clinics in the Institute's continuing series, the forthcoming Clinics will be one full-day sessions held at the Institute headquarters on the campus of The George Washington University, and will be conducted by a team of invited experts representing a range of disciplines relevant to the topics under consideration. The Clinics are initiated with concise presentations of the problems involved by key discussants and the rest of the day is occupied by an instructional dialogue among the participants.

As a research tool, there are three major objectives of the Clinic: diagnosis (i.e. to surface otherwise inaccessible information); instruction (i.e. to exchange experience and opinion); and remedies (i.e. to provide new insights and approaches). One underlying purpose of the Clinic is to define further productive areas for Institute Research.

The Clinic scheduled for February will explore management aspects and operational problems relating to trade secrets. The meeting will cover policy planning and procedures. The practical aspects, such as safeguards against so-called employee "raiding," the role of ethical standards and company regulations, the proper release of technical information in scientific reports, and the protection available through litigation, will be given special attention. This Clinic, focusing primarily on management experience and opinion, will deal with actual company situations, and ideas on appropriate action will be exchanged.

As a natural sequel to the Trade Secrets Clinic, the April Clinic on Unfair Trade Practices Relating to Industrial-Intellectual Property will cover injuries suffered by businessmen by the appropriation of their interests in commercial trade

relations, other than trade secrets, by third persons. The meeting will deal with legal and economic problems. Company situations will be considered and suggestions for practical adjustments to the problems will be exchanged. Attention will be given to appropriation of business ideas, styles, designs, and other devices, including the implications of the misappropriation doctrine and the *Sears* and *Compco* cases.

Transcripts of both Clinics, as in the case of the previous ones, will be published in *IDEA*.

## New "What do you know about . . . ?" on Computer Software Distributed

A new "What do you know about . . . ?", a one-page guide on material recently published in *IDEA* on Protection for Computer Software, has been distributed. It concerns current problems involving the protection and utilization of computer software.

This "What do you know about . . . ?" is the latest in the series of guides, intended for the busy executive and professional person, to Institute reports and publications.

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# Proceedings
# Thirteenth Annual
# Public Conference
# The PTC Research Institute
# The George Washington University

In cooperation with
The Federal Bar Association and
The Bureau of National Affairs, Inc.

# The Conference

The Thirteenth Annual Public Conference of The PTC Research Institute was directed toward "Technical Knowledge: Its Protection, Use and Flow." The Conference this year was held in cooperation with the Federal Bar Association and the Bureau of National Affairs. The four previous Annual Public Conferences of the Institute bore on the Report of the President's Commission on the U.S. patent system. The Ninth and Tenth were intended to serve as data bases for the Commission, and the Eleventh and Twelfth analyzed research on the Commission's report and federal legislation stemming therefrom.

This Thirteenth Annual Conference explored the growth (i.e. research and development activity), protection, and transfer of technological information. It examined the present crisis in communication, and the transmission of knowledge in the light of the public interest and private benefit. Industrial property problems in conglomerates were also analyzed. The staff of the Institute and outside experts discussed current issues relating to industrial property licensing, taxation, cost of enforcement, and government policy. Special attention was directed to the international role of industrial and intellectual property and the opportunities for cooperation.

The research work of The PTC Research Institute represents the first university attempt at a comprehensive study of the patent, trademark, copyright and related systems in the United States. This study is systematically planned and coordinated, inter-disciplinary in nature and utilizes a combination of specialties such as economics, statistics, psychology, sociology, and law; and empirical, that is, based on the facts gathered by the staff on the actual operation of the systems.

Program participants and registrants at this Conference included key professional and executive representatives from different fields of activity throughout the nation: commerce, education, science, manufacturing, finance, and government.

The proceedings of the Conference are published in this issue of

*IDEA*. It contains an edited transcript of the proceedings which includes research prepared by the staff of The PTC Research Institute, the presentation of current issues by qualified speakers and discussants and questions from the floor. Presentations of invited contributors are set forth as separate papers. This format packages the contributions of individuals as discrete, easily discernible units. Although it is our custom to print the edited version of the verbatim proceedings, several participants, upon their request, substituted more complete papers.

# *Technical Knowledge: Its Protection, Use and Flow*

# The Proceedings of the Conference

*Thursday, June 5, 1969*

DIRECTOR L. JAMES HARRIS: Good morning, Ladies and Gentlemen.

We have been hearing a great deal about student power, faculty power, and other kinds of power. For The National Law Center of The George Washington University of which The PTC Research Institute is a part, we have an even greater power—Dean power. When it comes to decisions on all the other powers in the Center, the buck stops with the Dean. With sincere admiration for the excellent work he is doing and with no envy at all, it gives me great pleasure to introduce Dean Kramer. (Applause)

## Welcome

**ROBERT KRAMER**

Thank you very much, Lou. Ladies and Gentlemen:

I would like to correct one possible misapprehension that you may be under because of the nature of the generous, warm and heartfelt introduction of me. If I had written that introduction, and I didn't write it, I assure you, I would not perhaps have stressed so much the fact of Dean power, because as far as I can find out, it is quite true there is student power, alumni power and faculty power, but, Dean

power, no. It just doesn't exist any more. The Dean is the chief errand boy, the chief janitor, the chief dishwasher, the chief confidant and advisor, but as far as power is concerned, if the Dean has any power any more, even to get himself in and out of his office, I have been unable to find that power.

So, I want to assure you if you want to go looking for power on an academic campus these days, don't go see the Dean. That is not the right place.

I do, on behalf of the faculty, students, alumni and all the other sources of power in The National Law Center, want to extend to you our most cordial welcome to the Thirteenth Annual Public Conference of The PTC Research Institute.

I am particularly impressed this morning in noticing that Lou Harris believes in defying the powers and gods that be, because this is the Thirteenth Annual Conference.

I would have expected that he would follow the usual tradition of after 12 comes 14. I understand Justice Warren has the title of the 12th Chief Justice of the United States Supreme Court and Mr. Burger has announced that he would be the 14th Chief Justice. The explanation, I understand, lies in the fact that Mr. Rutledge, who was one of the first nominees, never actually served. So, by juggling a little bit Mr. Warren can be the 12th and Mr. Burger can be the 14th.

As I recall, it was about a year ago that I was standing up in front of you and if ever a conference might have been the unlucky 13th, it was the one held a year ago.

You may remember a couple of months before then a part of Washington D.C. had gone up in flames and at the very time the Conference was meeting those of you who were here were uneasy because there was Resurrection City a few blocks away and all sorts of rumors, so many people were quite reluctant to come to Washington. In fact, I noticed the story on one of the front pages of the Washington Post this morning to the effect that something like 50 or 60 million dollars worth of tourist business went down the drain a year ago. So, in that sense, if we can survive that, we can look forward to a most successful Conference this year.

I have no doubt that that is true because Mr. Harris who plans these affairs has planned this one and in looking over the program, it looks like a very meaty program.

So, once again, let me say that to the extent that I have the power to do so, I am delighted to welcome all of you to the Thirteenth Annual Public Conference. Thank you. (Applause)

DIRECTOR HARRIS: Thank you, Dean Kramer.

It gives me great pleasure to welcome an old friend. Cyril is so busy it took me thirteen Conferences to get him to attend—and then in an official capacity. He has had a distinguished career in government, plays a wicked game of golf, and is executive director for one of the leading retired persons associations—and, of course, is President of The Federal Bar Association. So if you want to get along in government, learn to play whiz-bang golf, or provide for your old age, Cyril Brickfield is the man to see. Seriously, it gives me great pleasure to introduce the President of The Federal Bar Association, Mr. Cyril Brickfield. (Applause)

**CYRIL F. BRICKFIELD**

Thank you, very much, Lou, and Ladies and Gentlemen: You have heard that old story about the fellow who got up to speak and said it was the second best introduction he had ever had, that the best one was about a month previously when the person who was to introduce him didn't show up and he had to introduce himself.

Lou and I are old friends. I came to Washington in 1951 as counsel to the House Judiciary Committee. As you know, it has, among other things, jurisdiction over patents, trademarks, and copyrights. The Counsel that handled these matters at that time was Lou Harris. He left in 1953 to establish, I believe, The Patent, Trademark, and Copyright Foundation of The George Washington University. I took over many of the functions he performed for the Committee. For 10 years I handled patent legislation, copyright legislation, and I thought that we made real progress because from '51 to '61 on Capitol Hill, most of the legislation in this area really was initiated on the House side. In fact, I didn't have a Senate counterpart, that is, a counsel who handled patents and trademarks over on the Senate side. So it was from Lou Harris's good beginning. He was responsible for the revision and codification into positive law of Title 35 of the United States Code, which is the patent title.

We both worked for Mr. Celler. He is Chairman of the Committee, a fine gentleman from Brooklyn. He is the Dean of the Congress. He

has been there since 1923. He has been there about 46 years, continously. I remember going to meetings such as this with him. On one occasion he got up and made a speech and when it was all over a lady in the crowd came up and said, "Congressman Celler, that was a great speech you made, can I have a copy of it?" He pointed out to her that his remarks were informal and extemporaneous. She was insistent and she wanted to know when his speech would be printed. He said "Madam, if my speech is ever printed it will be printed posthumously." She said, "Well, I hope it is soon." (Laughter)

I don't have a speech. I work for a retired teachers' association and I was up in Staten Island yesterday at one of their chapter meetings. They are a lot of fun and game meetings. They come for lunch and stay until four o'clock. When you are the last speaker that is a long time to wait. They were congratulating one lady in the crowd. She was 91 years old. They sang Happy Birthday, said things about having attained the ripe old age of 91. In any event, there came a time when it was necessary for her to get up and say something, too, which she did. She got up and in her own prim way said that had she known she was going to live so long, why she would have taken better care of herself.

If I had known you were going to give me such a fine introduction, Lou, I would have thought of something better to say. (Laughter)

In any event, The Federal Bar Association is very happy to be a co-sponsor with The George Washington University in this Conference and also The Bureau of National Affairs run by my good friend, Adolph Magidson. We team up with George Washington University on many occasions—several times each year. Only a month or two ago we shared a conference with it on labor law. I think this is a good thing, especially for The Federal Bar Association because we are an association of government lawyers.

We were established in 1920 and we are not newcomers. We have been around almost 50 years, but we feel as lawyers should feel, I believe, that we have to have a role of leadership, else what is a bar association for.

Here is a golden opportunity for us to show that leadership, to join with a leading university in this area. Also, I think that this is an appropriate time for a meeting of this kind because any lawyer who works for industry must know what is going on in government and in the new Administration. More importantly, I think you will agree with this, he wants to know what is on the business horizon,—what is going to happen six months from now or a year from now in the new Administration.

When I go up to New York to our executive directors' meetings up there, they want to know what is going to happen, what is coming along. It is like a budget, what are going to be the expenditures for the next year. Here is a time to talk not only about what is happening now but what is on the horizon, an opportunity to talk with the people in the Nixon Administration, get some kind of a lead as to what is in the wind.

I know, and I see here, Commissioner Schuyler, the new Commissioner of Patents, I see Mr. Cary of the Copyright Office in the audience, and I am sure there are others. It would be a good time to get from them as best they can give it to you what the future holds. So, I end on that note, Lou and ladies and gentlemen, and I hope you have a very successful and informative conference. I know you come in feeling that it will be a successful one, I hope you have the same feeling when you leave. Thank you very much. (Applause)

## Introductory Remarks

L. JAMES HARRIS

This year the Institute experiences a concurrence of three occasions. In February of 1969 The PTC Research Institute celebrated the fifteenth anniversary of the date on which it was placed in operation by The George Washington University as part of the University's research and educational facilities. In the spring of this year the Institute completed a systematically planned series of research studies on the Report of the President's Commission on the Patent System and legislation stemming therefrom, which was published as a monograph entitled "Patent Revision Proposals: Incentives or Deterrents to Technological Innovation?" and today and on June 6 will be the first time that the Annual Public Conference of the Institute is being held in cooperation with other organizations—The Federal Bar Association and The Bureau of National Affairs. The one exception was the commemoration in 1965 of the 175th anniversary of the United States patent system, when the Commemorative Committee of the 175th cosponsored our Conference.

We invited The Federal Bar Association and The Bureau of National Affairs to cooperate on this Conference because we think that

it is important now to convey our research and our activities to additional publics who may have a general or special interest in invention, innovation, or the industrial or intellectual property systems.

The design of the Conference in a broad sense follows the current and planned research program of the Institute. It also is intended to demonstrate the basic unity in the diversity of subject matter represented. Each of the sessions is also planned to obtain an integration —an intellectual cross-fertilization. In each one of the sessions, Invited Contributors are participating with members of the Institute's Research Staff. You will note that our own Staff as well as Invited Contributors are drawn from different pertinent disciplines and professions, and in each of the sessions there is a relationship between the subject matter discussed in the different parts of the session. The exchange among the participants in the discussion and question periods for each session, because of this balance and relationship of specialization and subject matter, will achieve a reciprocal reintegration that will lead, we hope, to unanticipated benefits.

In the case of the opening session, we are combining the function of commentator with that of moderator in Commissioner of Patents Schuyler, in the second session in Associate General Counsel of PPG Anderson, and in the third session in Professor Rahl of Northwestern. By this means we will achieve the views of a government representative, business executive, and university professor, as they spotlight and take account of different positions in balancing the presentations in their respective sessions. In this way, we look forward to a new and even more productive integration.

Also, we are most fortunate in having distinguished speakers who are so authoritative and relevant to the subject matter of the Conference address us at the luncheons today and tomorrow, and at the Kettering Award Dinner this evening.

Part A of the first session on "Executive Decision-Making" will reflect the Institute's study on the role of industrial and intellectual property in such decisions. We have been examining by means of empirical research the role of industrial property (including trade secrets) in decisions relating to research, development, and production. We have been exploring the interaction of decisions to protect industrial property developments by patent or other legal means with decisions on other aspects of strategy of larger firms and of small businesses.

In Part B on "Licensing Policy and Procedure" we will be reporting on a current phase of our investigations of licensing operations by American business in the U. S. and abroad. Particular emphasis is

being placed on the relation of American patented inventions, trademarks, and techniques (as well as American-owned foreign patents and trademark registration) to licensing by American business in foreign areas.

In Part C, "Cost of Enforcement of Industrial Property Rights," we will present information on a study we are engaged in designed to draw together relevant factual data and expert opinion on how to increase the certainty and reduce the delay and expense in patent litigation.

In Part D on "International Experience and Problems," we will be reporting on a survey directed to executives of American and foreign companies involved in international trade. This survey constitutes the first part of the Institute's major project in the international area, which is organized as a single unit divided in three parts. Information from the other two parts of the study will be presented at the end of the second and third sessions of this Conference. You will appreciate the benefits derived from this divisional treatment by the relation of the subject matter of the various domestic projects, which will be discussed in the different sessions, to the final international part in each session of the Conference. Specifically, the second division of the Institute's international study will be presented Friday morning in Part D, "Private and Public Roles in International Transactions." This division of our international study is primarily directed to the views of government experts and the role of international public and private organizations. The third division of our international studies will be presented in Part C, "Toward International Arrangements," in the third session on Friday afternoon. We will then discuss the views and experience of the international experts in private practice.

In these international studies we are seeking to illuminate the challenges and opportunities presented by foreign markets to American interests. In view of the development of proposals for harmonization of national patent laws and of proposed international arrangements and treaties, special attention is being given to existing and proposed national and supranational legislative and treaty arrangements, and to common industrial property problems relating to the transfer of technological information between countries. Against this background, you will appreciate the significance of the theme of the Conference, "Technical Knowledge: Its Protection, Use and Flow."

Returning to the first session for a moment. In the first session we will seek to set the tone and provide perspective. In short, it is the "Private Stakes in Invention" that must provide the basic needs and prospects for industrial property—and, therefore, for the Conference.

In the second session, "Government-Private Issues," we will be dealing with areas of the law, antitrust, unfair competition, and taxation, in which a proper adjustment of government policy would be in the public interest. Part A of the session "Current Antitrust-Unfair Competition Developments" will consist of three areas in which decisions of the courts have brought into conflict the remedies of intellectual property owners. In view of the considerable publicity currently being given to conglomerate mergers, it would be presumptuous on my part to emphasize the importance of their problems, industrial property, or otherwise, to this audience. With respect to area three, the Institute is currently examining licensing practices and procedures in different industries and studying the economic, legal, and social effects of various licensing limitations. In area two we will hear about an Institute study on the interrelationship between antitrust and unfair competition.

In Part C, "Taxation of Industrial Property," we will report on the continuation of our studies to identify tax problems involving patents, trademarks, and related property and the utilization of tax opportunities.

The third session, on "The Impact of Economic, Technological, and Cultural Change," is a reflection of the Institute's endeavor to direct the continuance of current projects and the selection of new projects to those problems of the greatest immediate or growing urgency and the greatest practical interest to all those concerned with industrial and intellectual property. In Part A "Trademarks: Are They Valuable and to Whom?" we will report on our continuing empirical examination of the economic value of trademarks including trademark management practices, investment, and trademark promotion. Doubts concerning the value of trademarks have been reflected in the legal and economic literature. Certain legislation and court cases evidence the trademark controversy. We recognize the uncertainties arising out of this type of controversy and we seek to fill the gaps in existing knowledge. In Part B of the third session "Crises in Communication" we have brought together four areas in which the Institute has an abiding interest. The Institute has been reporting on these topics in *IDEA* and has discussed them at previous Conferences. The theme that runs through these four areas is particularly relevant to this Conference: the protection and use of knowledge in the flow of information affected by economic, technological and cultural changes.

There is great current interest in evaluating our patent and related systems and identifying possible improvements in our international patent arrangements. We hope that the opportunity we afford inter-

ested persons at this Conference to make constructive recommendations, and the research gathered and presented by the Institute, will provide information to better appreciate the domestic challenges and the international needs relating to these systems, so that sound decicisions can be made and this country be the better prepared to continue its significant economic and technological role in coming years.

I hope you will excuse my long-winded introductory remarks, but I thought you should be informed at the outset of the rationale—the what, why and who—behind the program. Now to turn to the actual business of the Conference.

## FIRST SESSION

# I. Private Stakes in Invention

## Part A—Executive Decision-Making

DIRECTOR L. JAMES HARRIS: Timing is so important in the affairs of men and the destinies of institutions and yet it is not often that the right man comes along at the right time to fill the right position in an organization. Today, I am pleased to bring an exception to your attention—Commissioner Schuyler—who incidentally is a rare bird on two other counts: he was born in the District and is a D.C. Republican. Commissioner Schuyler was trained as a patent attorney, followed this with experience in several company patent departments, was a partner in a leading D.C. patent firm dealing in both domestic and foreign patent matters, was very active in bar association work, taught patent law and—not the least of his qualifications—he is interested in the work of the Institute, which I trust he will continue. It is my great pleasure to present the Moderator-Commentator for the first session of the Conference, Commissioner of Patents William E. Schuyler. (Applause)

MODERATOR-COMMENTATOR SCHUYLER: Thank you very much, Lou. I have been designated as the government representative among the

Moderator-Commentators and this is my maiden voyage in such a role. So if I have an opportunity to comment, I may find that I am wearing more than one hat.

I have stated publicly that in my job I intend to find out what it is that those who live with the patent system want and try to help them achieve it. So I am looking at my job from your point of view. As we explore this comprehensive program put together so ably by Lou Harris, I intend to look at it and, if the occasion presents itself, to comment still from your point of view. This is a comprehensive program. Lou Harris typically sets up an outline that demands an in-depth investigation and then he finds top talent to present it to you.

Any one of these sessions, or parts, could probably take a full two days. So, he turns over a program with five separate parts in it to a moderator like me and says: You have about three hours to squeeze it in.

My main job will be to introduce our speakers and while they have been warned they are under time limits, if any of them exceeds it too much I may have to exercise the prerogative of Moderator-Commentator, or even Commissioner, to bring it to an end. But in this first part of Executive Decision-Making and the role that technical knowledge and industrial property plays in such decisions, we have to lead off with an outstanding speaker, Mr. Philip M. Arnold, who has been with Phillips Petroleum since 1959 and in 1964 he was elected Vice President of R&D.

In addition to that he has been an Officer and Director of Phillips Affiliates, including the Idaho Nuclear Corporation. I have quite a list of his achievements, but I think it suffices to say that he is President and Director of the Coordinating Research Council and Director of the Atomic Industrial Forum. He is the inventor in 20 patents and the author of numerous technical papers. He has been President of the Industrial Research Institute and is currently Phillips representative in that organization.

He is a native of Springfield, Missouri, and received his degrees from Washington University in St. Louis. In 1968 his alma mater recognized his services and cited him as a distinguished alumnus. Our first speaker, Mr. Philip M. Arnold. (Applause)

## PHILIP M. ARNOLD

Thank you very much, Commissioner Schuyler.

Ladies and Gentlemen, I feel some trepidation speaking to a group of people who are trained in the law, engineers are not, ordinarily, as adept at words as lawyers are but I am going to do my best.

On decision making I was a little puzzled, because executives sometimes make decisions on the basis of inadequate information, yet they have to make decisions.

There is an old story about a small town church where the minister conceived a desire to have a chandelier in the church. It became something that he just couldn't do without. He called on the members of the congregation to make contributions. He approached one old man who kept saying "No," but finally said, "As long as you want it so badly I will contribute, but I don't know who in the congregation is going to play the thing."

Well, executives make decisions sometimes because of advocacy by someone whom they trust. But it really is better if the executive can make his decision on the basis of facts. The same thing applies in the general field of patents, trademarks and copyrights.

Since the beginning of the modern age of technology, about 300 years ago, manufacturing techniques, equipment, and products have changed continuously. The rate of change has increased greatly during this century and it continues to increase. Those manufacturers who have been unwilling or unable to make changes at the same pace as their competitors have fallen behind and have eventually disappeared. Of course, commercial nonmanufacturing activities also have been influenced greatly by technological improvements because, in general, they all rest on a foundation of manufacturing. For example, modern agriculture depends greatly on the availability of engines, fertilizers, insecticides, and other manufactured products.

Every manufacturing company today is dependent on innovation, and must have some means of access to it. The same may be said of governments, but we are concerned this morning with private stakes in invention. The executive of the private industrial corporation is often faced with making decisions in relation to three important aspects of the new technical knowledge his company must have. They are: (1) How shall the company acquire the new technology it needs? (2) After the technology is acquired, how shall it be protected from unauthorized use by others? and (3) How shall the technology be exploited?

Taking up the first question, that of the route to acquiring the new technology, there are three common approaches: (1) Purchase new and improved equipment or new techniques developed by others as they become available in the market; (2) Contract with a research institute or other organization to perform research and development; and (3) Support inhouse research and development.

In all three cases R&D work by someone is involved. Small and new organizations usually resort to the first two procedures. Large and mature corporations often employ all three, mainly because even the richest and most technically sufficient companies have been unable to dominate the field of invention, thanks largely to the U. S. patent system and to the unpredictable ingenuity of the human mind.

The first route to new technology, that of purchasing information on the open market, has the disadvantage that the buyer lags behind others in the exploitation of new knowledge. On the other hand, it has the great advantages of minimizing investment in research facilities or escaping part of the cost of unsuccessful research, and in some cases, of enabling the buyer to enter an already established market. The second alternative, that of contracting for research with a research institute, presents a somewhat higher degree of risk, since the purchaser will have to bear the cost of unsuccessful experiments and may have to develop a market for the product of the research. On the other hand, he still minimizes his investment in research facilities, and he may have access to a larger and more competent scientific and engineering staff than he could otherwise afford.

The third alternative, inhouse R&D, offers the greatest risks, but at the same time the greatest rewards, if it is competently organized and directed. A new product satisfying an unfilled need can be highly profitable to the organization that first markets it. An R&D department may contribute many benefits to a company, not the least of which is the image of a progressive organization. However, the reason for the existence of R&D is to enable the company to carry out its business more profitably than it could without it. That is not always easy to demonstrate, but certainly management executives must have that kind of faith in the R&D department.

R&D activities are supported in the expectation of new and improved processes and products. Hopefully they are a kind of insurance against obsolescence and loss of competitive vigor, and a kind of wager that some development will be forthcoming that will confer a short-term competitive advantage.

Let us now consider the second major aspect of new technology

requiring executive decisions, that is, how can new technology be safeguarded? Assume for the moment that an obviously useful and important technological discovery has been made, either through a contract with a research institute, or through inhouse activities. It can be safely concluded that any company, regardless of its R&D and patent philosophy, would apply for a patent in such a case. However, a revolutionary invention, like the telephone, seldom appears from the laboratory perfected, and ready for immediate commercialization. What does the corporation do with less profound discoveries? The decision may be made to preserve the discovery as a secret—a poor decision, since it is virtually impossible to prevent the great number of able scientists now working in industry from ferreting out the key to the discovery. The other alternative is to procure patents. Some companies elect to patent only what they consider to be important discoveries—a policy of some merit, but difficult to practice. Other companies choose to patent virtually all discoveries that are believed to be patentable under U. S. law. I must admit a strong bias in favor of a vigorous patent program to protect the fruits of research and development. That point of view undoubtedly has been fostered by long association with a company that has had a high regard for patents. The first major assignment for the newly formed Phillips Research Department in 1925 was to aid in the defense of a crucial patent infringement suit. That experience, coupled with the patent turmoil in the oil industry of that period, established a high degree of patent consciousness in the company. Suits and countersuits over thermal cracking patents were the order of the day. Conditions became so chaotic that the larger oil companies, as a matter of self preservation, began to settle their differences out of court by forming patent pools. The question soon arose as to what was to become of a company without any patents to pool. The answer was plain—either obtain negotiable patents, or enter a corporate existence of continual harassment and tribute payments.

The advantages of a policy of selective patenting would be overwhelming, if the requisite degree of omnipotence were available among those selecting the candidate inventions. Some of the factors complicating the selection of patent applications include: discoveries made before their time; inventions relating to fields not pertinent to the company's contemporary business; discoveries in the realm of pure science requiring practical ingenuity for the creation of a patentable invention; and the assessment of the commercial acceptance of an apparently patentable invention.

Examples of lost opportunities could be cited for each of the mentioned cases by anyone with a long association with R&D work. However, on the assumption that very few mistakes were made by the invention selection committee, the following benefits would presumaably accrue from selective patenting: Minimal expenditure of money for patents, good income from royalties because of high quality of patents, and a larger R&D program from the money saved by reduced patent expenditures.

Where patent policy is concerned, each company must take a calculated risk with respect to the degree of protection deemed necessary. Phillips Petroleum Company belongs to the school that seeks to reduce the risk to a minimum. That is accomplished through the agency of a Patent Division that has full responsibility for the preparation, filing, and prosecution of patent applications, as well as other patent functions such as licensing. The division has its own staff of scientists and engineers as well as lawyers, so that the mechanics of patent prosecution will result in a minimum of bother to R&D personnel. Trivial and nonpertinent discoveries are not a problem since the R&D program is frequently reviewed to make sure that it is directed toward corporate objectives. Through continuous surveillance of R&D reports by the technical section of the Patent Division, and by means of patent ideas submitted by R&D people, it is hoped that very few patentable inventions are overlooked.

There is obviously a difference of opinion among corporations regarding the amount of effort and money that should be expended in the acquisition of patents. If that were not true, the annual number of patents obtained by a corporation would be roughly proportional to the size of R&D organization, and that is not the case. Each company is presumed to be satisfied with its own course of action. Where R&D is carried out by a wholly-owned subsidiary, fees for services rendered may make patent income of minor importance. Where R&D is carried out by a department, as at Phillips, income from outside patent license fees may nearly equal the R&D budget and materially reduce the net cost of R&D to the corporation. Profitable operation of the corporation is the name of the game.

I believe that broad patent coverage of R&D effort redounds to the benefit of the corporation in many ways. Patents are a form of advertising, in that the issuance of a printed patent implies that inquiries concerning a license are in order. A copious flow of patents is indicative of a vigorous research program, and in a given field may be taken as a warning of preemption. In areas of intense business

competition, the ownership of pertinent patents leads to presumption of noninfringement of a competitor's patents. Even though a patent or a group of patents fails to dominate a product or process, it frequently permits the negotiation of a royalty-free license under the controlling patent, or a license at a much-reduced royalty rate. In general, a strong patent position will encourage the investment of capital in new processes and products, which are the real sources of corporate income growth. At the very least, an issued patent represents some tangible return on R&D investment, having more of a market value than a report buried in the company's files.

Even after a decision to file a patent application has been made, there is another important point to be considered. Should foreign counterpart applications be filed? In general, that is much more costly to a U. S.-based company than getting patents here. The question cannot be answered simply on the basis of whether or not the corporation has foreign plants or sales, because in some cases at least, the new technology could be utilized abroad by some other company and the product shipped back into the U. S. in competition with the company which developed the technology. Also, lack of foreign patents would preclude any possibility of obtaining royalty income from the licensing of the patents abroad.

Another matter on which the executive may be called to make a difficult decision is that of bringing legal action against an infringer of a patent or against someone who has stolen technical information. It is necessary to assess the damage sustained as a result of the infringement or theft and to decide how much can be economically spent to repair the wrong. Obviously an individual cannot afford to pay an attorney $100 to bring suit against someone for theft of $10 or even $100. An individual person might do so for the emotional satisfaction of bringing the wrongdoer to an accounting, but a corporation must be motivated primarily by economic considerations and it usually expects to get some tangible return in the event that it makes a legal attack against a trespasser on its rights.

After the new technology has been developed and has been protected by patents, the executive faces what often is the most difficult decision of all—how shall the technology be exploited? Answering that question requires careful investigation of economic matters like plant site selection, transportation methods, consumer acceptance of the product, sources of capital, and many other factors that cannot be explored here today. However, there are two points that we may well consider:

(1) Should the new technology be kept for the sole use of the originating company, or should it be made available to others?

(2) What should the company do with the new technology if it concludes that it cannot profitably use it?

With respect to the first question, the sharing of new technology with other organizations may be more profitable in the long run than holding it for the exclusive use of the originating corporation, even though it may be legally maintained as a monopoly for a period of years if patented. If the new product is one that finds widespread use, the originating company may not be prepared to spend the capital required to supply the entire world market. Consequently, putting a competitor into the field will not damage the originator's position, but merely make the product available to more people than could enjoy it otherwise. Also, the originating company will derive greater income, as it will receive a share of the profits of its licensee. Another factor is that a user is often reluctant to depend upon a product available from only one supplier. If that one supplier's plant should be closed because of natural disaster, shortage of raw materials, labor troubles, or for other reasons, the purchaser would be in a difficult position. If there are two or more suppliers, he has some possibility of obtaining emergency relief. Therefore, the introduction of a new product to the market is often facilitated by sharing the new invention with one or more licensees.

On the second question, what to do with a new development the company cannot use, it is obvious that an effort should be made to sell the development to another organization. The fact that the originating company finds the economics unfavorable does not necessarily mean that every company will be in the same position. Another organization may have idle capital it is eager to put to work; it may have an idle plant that could be adapted to use the new technology; or it may envision market possibilities that the originating company missed. If the development is merely put on the shelf, the chances are good that it will be a complete loss to the originator. If it is sold, he will have some return, even though he may not recover all of his R&D costs.

I will conclude by saying that in view of the technological record of the United States, the U. S. patent system must have many virtues to go along with its often mentioned faults. More patents are being applied for and being issued than ever before, which is some index of the increase in industrial R&D. A frequent criticism of industrial research is that there is wasteful duplication of effort. Patents tend to ameliorate that condition since there is no point in doing research on

a matter already disclosed in a patent. Industrial scientists are publishing, lecturing, and participating in scientific meetings to an extent not thought possible a generation ago. Patents were meant to do away with industrial secrecy, and all indications are that great strides have been made in that direction. There are facets of the patent system that could be improved, mostly those concerned with time. However, the system does work, hence there should be considerable reluctance to tamper with the mechanism. Thank you very much. (Applause)

MODERATOR SCHUYLER: Mr. Arnold certainly lived up to his advance billing. I was particularly interested in his observation that more patents are being applied for than ever before and I can verify that fact because we are receiving more applications than we had expected for the fiscal year of 1969 which ends at the end of June. I won't bother you with the problems that presents.

I was also particularly interested in the observation that our patent system is designed to avoid industrial secrecies and I would suggest the proposition to those who are in attendance and who are on the panel of what effect there might be on the matter of industrial secrecy if our law were amended to provide for automatic publication of every patent application at some arbitrary time, such as 18 months. In that connection I would suggest that you send forward your questions as they occur to you.

We will decide here whether we use the questions as we go along or save them for the period especially provided at the end of this first session.

To continue this discussion of Executive Decision-Making, we have Dr. Irving H. Siegel, who has an extensive background in government, foundation, and university research and has published in a variety of fields.

He is currently associated with the W. E. Upjohn Institute for Employment Research. Previously, he served on the Research Council of Research Analysis Corporation, successor to the Johns Hopkins University Operations Research Office.

He has served also as a member of the Senior Technical Staff of President Eisenhower's Council of Economic Advisers and as an occasional consultant to International Business Machines Corporation. Furthermore, he has been a consultant to The PTC Research Institute since its inception, contributing frequently to its quarterly journal,

*IDEA*. He has participated in all of the PTC annual conferences. Dr. Irving Siegel. (Applause)

## IRVING H. SIEGEL

I come before you with the handicaps of following capable speakers and of difficulty in deciphering notes that are also too voluminous. I won't mention the introduction, which also constitutes a handicap that is easier to overcome.

In particular, I follow Mr. Arnold, who, although he is an engineer, properly emphasized one of the points that I, as an economist, had hoped to make strongly: the overriding importance of profitability.

Another point that Mr. Arnold made is of considerable interest to me. He noted that companies take public pride in their patent record.

I should like in this connection to refer to one of the many hobbies I have pursued during my long connection with The PTC Research Institute—namely, that of mildly twitting corporations for their egregious failure to inform at least those privileged members of the public, their own stockholders, that many of the new processes and products touted in the annual reports have actually had any relation to the patent system. This is a remarkable failure of public relations. I have written a number of articles on this neglect for *IDEA*—and they have been impressively unsuccessful.

Every year, I get routinely a copy of the General Electric Company annual report, with a piece of paper routinely asking for comments. Every year, I respond—and not routinely—that it is a very good report in many respects, but why is the company ashamed of its use of the patent system?

This year, I received a minor reward. I think there is almost a page which links the technological progress of that company to the patent system. Congratulations, General Electric! Who will follow? Is any other corporate giant ready to stand up for the system in public?

I have wondered, as a matter of fact, if the importance of the patent system to American industry is one of the best-kept trade secrets.

I shall say something, in the rest of my talk, on three topics pertinent to executive decision-making. First, I shall comment on the

relations of executives to the personnel with whom they deal. Second, I shall make some observations on the larger environment of decision-making, as well as touching on profitability (the point made so well by Mr. Arnold). I shall focus on some of the new, emerging economic and social challenges that will have to be met in future decision-making by executives. Third, I want to say something about technological transfer—between countries, within countries, and within companies.

As for the first item on my agenda, the relation of executives to other personnel, I start with an article by Professor Chris Argyris, one of the outstanding writers on organization theory and decision-making (*Think*, November-December 1967). His remarks, like those of other writers on management, reflect the continual and considerable dissatisfaction felt in this field. This discontent is all to the good, and its persistence should not mislead laymen. After all, human problems are difficult to resolve; and, when they are resolved, they are replaced by others. Whoever mans the managerial parapets always has enough to watch for and to worry about; and the professional who clinically observes him always has enough to write about.

A few ideas emerging from the researches of Argyris, and stated by him in italics, are worth noting—provided we do not become unduly alarmed. First, he regards executives themselves as fertile sources—more fertile than computers—of the evils of "dehumanization, conformity, and ineffective decision-making." Second, the current style of interpersonal relationships and group dynamics favors the reward of mediocrity and the discouragement of high-grade executives. These patterns frustrate risk-taking and creative decision. Furthermore, says Argyris, groups represent a tremendous resource for decision-making when they enhance the unique contributions of individuals and thus provide for the reinforcement of negotiated decisions. Argyris also tells us that strong executives actually are more concerned than others about keeping their key subordinates happy. Finally, we hear once more that "organizations of the future will depend less upon coercive power and more on competence." The strengthening of organizational capability in information processing will presumably shift power toward the people who "know" and who can operate in "real time."

Although the shift from power to competence always seems overdue and always seems a plausible prospect, its meaning is far from clear. Of course, self-discipline and self-interest can be institutionalized in some degree as an alternative to traditional superior-subordinate relationships. But, in the last analysis, hierarchical authority has to be

available when all else fails, when self-discipline and self-interest are not adequate, when capable men who are equal are urged by self-interest to try to be more equal than each other. Alas, it is easier for men to acquire the self-interest that suboptimizes than the self-interest that optimizes; to acquire any kind of self-interest than to learn the necessary kind of self-discipline.

I also suspect that it is when knowledge is rare that the man who "knows" actually has power. Hence, the man who knows now may be more highly prized than he will be in the future. True, in this period of relative scarcity of knowledge, the man who knows may have only anonymous power, as a member of an inner circle or as a crony of the superchief. The power is nevertheless real. In a world brimming with knowledge, I doubt that knowing will become more significant than coercive opportunity as the basis of status.

It often seems to me, furthermore, that an organization is really limited in the amount of knowledge or creativity that it can stand—at the top, in the middle, and at the bottom. Can everyone act like Leonardo or Michelangelo and get away with it when everyone has special gifts or education? When we all become gifted or educated, somebody will still have to do the daily grubby work that keeps any organization going. Street-cleaning will still be necessary and useful when everyone has a Ph.D. Bureaucracies and "meaningless" jobs, I feel, will continue to exist because they will continue to be needed.

The key to all organization, I suspect, will remain the diversity of skills in proper amounts and in proper blends. An excessive emphasis on knowledge or creativity can produce functional imbalances that are eventually counterproductive. A good rule is this: Too much of a good thing is a bad thing. Of course, there is a tradeoff between good organization and good personnel, and every executive who reads the right textbooks should strive for the optimum. But, taking my cue from T. S. Eliot, I doubt that systems will ever become so perfect that people will no longer need to be good.

In two earlier papers, I have foreshadowed or elaborated some of the complexities that have to be borne in mind. In July 1953, in a pioneer paper in the *Journal of Business* on technological forecasting, a subject that now threatens to become a whole industry, I emphasized the difference between forecasters as observers and forecasters as actors. Organizations operate in a time dimension; so executives, who are actors, have to be forecasters too. They must propagandize and program to achieve the results that they desire through time. Furthermore, they operate in an environment that is essentially hostile.

Other actor-forecasters, above them and beside them, competitively try to achieve their own ends. My second paper, "Employee Creativity and Organizational Aims," appearing in *IDEA,* Fall 1965, noted, furthermore, that two distinct kinds of creative subordinates have to be managed. One kind is responsive to external command. The other kind listens only to private angels who strum the inner ear. The first kind is generally more useful to executives who need technical innovations. Nevertheless, it is the second kind who have the greater reputation for creativity—despite the net loss commonly experienced in attempts to harness them in organizations.

My second topic concerns the external climate of executive decision-making. A foremost requirement, of course, is the prospect of profit in contemporary or future markets. The conduct of research does not guarantee profit, despite the clichés of the journalists. Formal research, furthermore, is newer in our country and is less characteristic of American industry than is commonly imagined; the profit system is very much older. A hamburger or doughnut king who has a good recipe and does well enough would be foolish to forsake his only realm to seek an elusive "E" for electronics.

Research, I should add, has its dry holes, and it is well known that only a few of the ideas brought to a company's attention for development merit serious consideration. An executive of Union Carbide recently mentioned one idea out of 200 submitted as a plausible ratio.

I wish now to state three speculative propositions about the larger environment for executive decision-making. One is that federal support of hardware research and development will become less certain and may even diminish. Congressmen, it appears, are beginning to get as much fun as college boys do out of kicking sacred cows in the udder. Inquests into the extravagant development costs of the F-111, the C-5A, the Sheridan tank, and so forth aggravate the public irritations already induced by the Viet Nam hostilities and by inflation. Furthermore, a proposed Rube Goldberg thing for the military may increasingly be challenged for advance assurance of utility. The ABM controversy gives us a hint of the future environment of military research funding.

My second speculative proposition is that growing anti-intellectualism—not only on the campus but elsewhere—may force a serious departure from our traditional espousal of technical prowess. Old values stand at bay. The equality of opportunity for unequal achievement may become socially subordinated to other kinds of legalistic egalitarianism. Not only can an American "Samson complex"

lead to excessive disarmament in the face of a stubborn survival or growth of nationalism elsewhere in the world but it also can lead to excessive self-laceration at home. Attacks on pharmaceuticals, pesticides, vehicles, and other artifacts that become identified with health hazards, accidents, pollution, congestion, and other degradations of the quality of living may be difficult to keep under reasonable control. C. P. Snow warned not long ago that literary intellectuals are "natural Luddites." He would now have to add that they are meeting stiff competition from mathematical intellectuals.

My third proposition is that domestic social needs will attract a growing share of federal research money. Health, welfare, policing, pollution, traffic, education, waste disposal, and so forth will concern us more as population continues to grow significantly and as we shift interest from external war to internal peace. Many companies and executives now focusing on government hardware research will surely seek a proper role in these softer areas.

I come now to my final topic—technological transfer. Executives hear and make remarks on this matter that have to be taken with a grain of salt—like the remarks of Argyris and others on the quality of executive decision-making in the United States. As a nation, we have really done quite well compared to others—although never well enough according to our internal competitively determined standards. Historically, we have always attracted capable people—and the underprivileged inventions of other lands. Of course, our technical prowess is not the same as scientific eminence, and it need not automatically persist. In any case, the inflow of Nobelists and other technical people who have received superior education, training, and experience elsewhere has been great enough and steady enough to occasion concern (even in the United States sometimes) about the "brain drain" from Europe and Asia. As long ago as Alexander Hamilton's *Report on Manufactures,* mechanical aptitude was recognized to flourish in our land. And have we not, in our public schools, praised Samuel Slater for his technical thefts from Britain rather than condemned him as a crook, as a prototype of today's filchers of trade secrets?

Late in May, in the *New York Times,* a truly famous Soviet physicist complained that the USSR lags behind the United States in technology and productivity despite cultural parity. This is a joke, though an unintentional one. The gap was great many decades ago. The USSR has set goals to catch up with, and overtake, the United States in per capita income, mechanization, and so forth. Slogans have not availed.

In friendlier nations, too, the persistence of the technological gap in favor of the United States is commonly deplored. A Frenchman, Servan-Schreiber, has dramatized the situation in a widely-read book. OECD has perceived a critical advantage in the caliber of our management—yes, in the quality of our executive decision-making. Numerous teams that have visited our country from Europe and the Orient since the end of World War II have had an opportunity to feel the different parts of our technological elephant and to tell the story of its superiority in their own ways.

It would be foolish for us to conclude, of course, that complacency is warranted. Even if we did, modern executives are not likely to heed us in the context of competition in which they operate. In any case, it is always desirable to observe and reflect on the experience of other countries, large and small, showing significant progress in one or another area of technology even if not throughout the whole range—Japan, South Korea, and Israel, as well as West Germany, France, and the USSR.

In the not-too-distant future, of course, our decision-makers may have to meet the tests of a sluggish economy after a long run of good years. The slow hemlock of monetary policy has been administered to our economy. It is surer to cause unemployment than to bring down prices. Even conglomerates would, in the new environment, finally have to prove themselves operationally competitive. And, by the way, will lateral leadership prove handicapped, in comparison to vertical hierarchy, as the need to prune expenses becomes urgent? What will happen to self-discipline when confronted with a contraction of business?

These observations say something about the capacity for domestic technological transfer. The Internal Revenue Code of 1954, the Small Business Act of 1958, the Small Business Investment Act, the State Technical Services Act of 1965, and numerous other laws have provisions for speeding technological transfer within the economy. There never seems to be enough legislation, and the stubborn problems never disappear. Within the firm, too, according to numerous reports of recent years, technological linkage is never good enough. The National Academy of Sciences, the National Industrial Conference Board, the National Planning Association, the Select Senate Committee on Small Business—these are only a few of the organizations that have conducted or sponsored studies on the ways to connect research and application more effectively.

Again, I say, the technological problems of companies either are not

amenable to fundamental solution or are at best replaced by other problems. But take heart, for this is what management is all about. The problems of industrial life are chronic; so long as the firm lives, the problems exist. Do not doctors talk of managing, rather than curing, chronic illness? Where the cure may be death, it is a sign of health for executive decision-makers to be continually dissatisfied with their own performance and to seek to do better. Thank you. (Applause)

MODERATOR SCHUYLER: Dr. Siegel is such an interesting speaker and has such a fund of knowledge it is difficult to suggest that he stop.

We have planned a no longer than 10-minute coffee break and I believe you will find the service at the rear of the room. In 10 minutes we will reconvene. (Recess)

MODERATOR SCHUYLER: Please resume your places, gentlemen, and we will reconvene our panel.

We will continue with this morning's session and Mr. Harris says we are running behind schedule so we will continue until exactly 12:30 and wherever we are we will stop for lunch. I might say that running behind schedule really doesn't worry me because due to an unexpected circumstance I cannot return after lunch, so my substitute is going to have to worry about the schedule.

Frank Neuhauser has agreed to undertake that chore but I don't think he realizes the magnitude of it.

Our next speaker is from the younger group to which some reference has been made. For this year and next year he is the Thomas Alva Edison Fellow at the Research Institute. In the school year of 1967-68 he was a graduate teaching assistant at George Washington University and he holds his bachelor's and master's degrees from that university and is presently working on his doctorate.

He is a part-time lecturer at the School of Business Administration at George Washington and his particular interest is in executive decisions related to industrial property.

We will be pleased to hear from Mr. Wallace Johnston. Mr. Johnston. (Applause)

## WALLACE R. JOHNSTON

Thank you. During the past eight months I have been associated with the Institute and my area of interest has been executive decision-making as related to industrial property—primarily patents. My research has taken the form of questionnaires, secondary research and interviews.

To date the interviews have been most fruitful. The study is not complete and I have been awarded the fellowship for an additional year.

I would like to give you some of the highlights of the study to date. I have encountered more diversity than I had originally anticipated, but I feel that it has enhanced the value of the study.

For today I have selected three companies to talk about. The first two illustrate the views of executives and how they operate within the patent system. The third is an illustration of what a company can accomplish in terms of management as a result of its patent position.

The first case deals with a large company. The respondent was one of many plant managers. His view of patents was that he didn't want to be bothered. They came out of his budget, they increased his expenses, and he was measured by profitability and not by expenses. He had one exception, that was a creative individual who had reached his maximum salary level. He allowed this individual to apply for a patent in order to build his ego, and professional reputation, and/or prestige.

This single use of the patent system was contrary to company policy. In the short run this gentleman has accomplished a lowering of his expenses. He looks better on his profitability statements, but in the long run there may be some unrecoverable and unrecorded losses that the company will experience. I would term this plant manager a "satisficer" rather than a maximizer.

The second company was a somewhat smaller company that dealt in government and commercial sales. The respondent in this case was the top vice-president. All the financing was generated in the company so they would have the fruits of their investments and so forth.

They received their first patent in 1957 and since have applied for and been granted additional patents. Patents serve as the foundation for their product line. They have competitors who infringe upon their patents but they do not prosecute. It is felt that they are a stronger

organization than any of their competitors and that they would suffer financial loss and possible loss of their reputation if they did prosecute.

On certain occasions this company has applied for patents, knowing full well they would not be granted. Now, they use this as a device to ward off competitors, potential competitors, and to throw their present competitors off base although they do tolerate infringement.

I would term this company as being very aggressive and having an aggressive patent policy and following it. They maximize inasmuch as they are trying to capitalize on all available resources. They are a little more dependent upon the patent system than the larger firms.

The third case is very dear to my heart. It deals with management. This is an example of how company officials act within or towards the patent system. It is an example of what a company can accomplish as a result of its patent position.

In 1960, the President of this company decided he was in a position to establish a new organizational structure. The foundation of the structure was to be the employee. Now, Theory "X" and Theory "Y", as explained by the late Douglas McGregor of M.I.T. in his book, *The Human Side of Enterprise*, are two contrasting forms of management. Theory "X" assumes that humans are lazy, prefer to be directed and do not want responsibility. Theory "Y", on the other hand, assumes physical and mental effort in working are as natural as play or rest. Individuals are seeking responsibility and many will exercise self-control and direction in service to objectives to which they are committed.

The President chose theory "Y"—participative management for his new structure. His objective became to integrate the goals of individuals with the goals of the organization. Starting at the top he established an executive council of eight members headed by the President. Each member was assigned a specific area of responsibility. Whatever their area of responsibility happened to be they were responsible for this throughout the whole organization. In a sense they would determine basic strategy and initiate action towards its accomplishment. The day-to-day allocations were delegated down to 20 department heads supervising 280 employees.

These department heads were responsible to the council members as a whole and they were to seek expertise from any individual that could make it available. If they had a marketing problem they went to the marketing vice president; but they didn't have to. They could go to the finance vice president. Implicit in this arrangement is an atmosphere of mutual acceptance and trust between the department

heads and the council. The mistakes, to a degree, were tolerated through the idea of freedom to fail. It is felt that through this freedom to fail, to a degree, it would allow growth, creativity and productivity to flourish.

Emphasis, then, we can see is on teaching and training, not the normal direction and control that we find throughout most organizations. To compensate for this lack of control the firm applies A. H. Maslow's "hierarchy of needs." Maslow, a psychologist, advanced the theory that individuals have five need categories starting with the basic physiological need of food, shelter, safety; freedom from being deprived of your job, social contact with others, loving, being loved, ego, reputation, self-respect and self-actualization or liberalization of an individual's creative talents and his personal fulfillment. The "hierarchy of needs" does not spell out the degree to which each need must be satisfied for it differs with each of us.

The company attempted to satisfy the needs in the following manner: The first need, physiological: The satisfier here was money. They paid above average salaries. The going rate in this particular area was $100 a week. They paid $124 a week. They did not dock an employee for sick leave under any circumstances.

The safety need: The satisfier was steady employment. They stockpiled during slow periods, delayed delivery during peak periods.

Social needs: Social needs were fulfilled by establishing small groups. People worked in groups and there were no assembly lines.

The ego needs were also satisfied by the small groups. Members trained each other. An employee with expertise would train the people below him to do his job. It was felt this satisfied his ego, the trainer's ego, as well as giving the employees the feeling that they were part of the organization.

The self-actualization: This need was satisfied through education and training, providing free education both on and off the job.

Another important thing that was carried on here was provided by the small groups in that without the assembly line, the employees were allowed closure in the sense that they completed a task as a group. It didn't pass down the line to be completed.

Now, the result of this particular form of organization was a steadily improved productivity rate—30 percent over a three-year period. You must remember management did not set the pace, the employees set their own pace. Customer complaints were down 70 percent and the absentee rate was 2.8 percent, or one-half the prevailing rate.

The success of this organization may rest with the form of organiza-

tion, the high salaries, the small groups, but without its patent position it would not have been able to attempt such changes. Ownership of the patents made it the sole producer of this particular product.

Through these three cases I have attempted to convey some highlights of my research to date, especially the diversity of executive use and action.

If you know of a company that would like to assist me in this study by allowing me to interview executives, or having them answer questions via the postal system, I would appreciate hearing from you. Thank you very much. (Applause)

## Part B—Licensing Policy and Procedure

MODERATOR SCHUYLER: I think we can learn a lesson from Mr. Johnston, that he can get across such a very deeply thought out message in a short period of time, so I suggest that to succeeding speakers.

Our next panelist, as we change to the subject of Licensing Policy and Procedure, is Mr. Philip L. Schlamp, of the General Electric Company, where he has been employed in the patent organization since 1951. He is currently Patent Counsel of the New Businesses Development Operations and in GE that is a corporate function responsible for identifying and developing new internal businesses and seeking for licensing inventions through its patent and technology Marketing Operation.

Mr. Schlamp is a graduate of Pratt Institute. He is admitted to practice in New York State and before the Patent Office. He is the immediate Past President of the Eastern New York Patent Law Association.

On the topic of Licensing Policy and Procedure, Mr. Philip Schlamp. (Applause)

**PHILIP L. SCHLAMP**

Thank you, Commissioner.

In the interest of following the Commissioner's suggestion, I intend to deprive you of the exquisite humor with which I usually open a presentation.

Determining one's stake in an invention and developing related licensing policy involves many separate and mixed technical, business and legal considerations. I shall approach the subject by discussing some of these briefly and suggesting how and by whom the job can be done.

First, licensing policy should be developed in the light of one's general business interests, technical worth of the invention, its current and foreseeable use by both himself and others, and its likely industry impact. This requires reasonably detailed technical and business analyses. Patent counselling is also needed to ascertain patentability and the kind of protection obtainable. Counsel can also provide guidance as to further developments needed to strengthen patent coverage, how best the invention may be claimed for licensing purposes, and general legal pitfalls to be avoided. Involvement of counsel before any policy-determining action is taken is advisable.

Where an invention is judged technically feasible and commercially attractive, and reasonably protective patent coverage is foreseen, a tentative and worldwide use and licensing plan should be outlined in writing. This will aid in recognizing specific internal business interests that could be affected, product and geographical areas in which the invention may be exploited by production and/or licensing and the extent and cost of patent coverage needed. It can also evolve into a definitive plan of use and a country-by-country licensing program closely integrated with one's own business activities and aspirations in such countries.

Should business interests suggest a "no-licensing policy" in any particular country, one must consider whether this option is really open and desirable. For example, are there prior license grants? Compulsory license laws? Or prior commitments to a substantial competitor, in the light of which a "no further licensing" policy may be suspect under antitrust laws?

From the marketing standpoint, can all foreseeable demands be met?—nationwide?—worldwide? If not, would unserved markets entice

infringers? Could licensing help gain market acceptance or open new markets for other products?

One considering a "no-licensing" policy must also ask "What can I do if my invention is copied?"

Without an issued patent, there is little he can do ordinarily except to try to accelerate patent issuance. Or, he might anticipate copying by licensing during the application pendency stage when, in effect, a licensee can be granted access to proprietary information in pending applications and firm commitments regarding terms applicable after patent issuance. At this time, the licensor may be viewed as a friend offering a "business opportunity" as distinct from a hostile patent enforcer.

If an issued patent is involved and the owner is inclined not to license, he must consider whether he would be prepared, if necessary, to devote substantial financial resources and time in trying to enjoin infringement, recognizing that many courts have held that injured patentees can be made whole by money damages only and refuse injunctive relief, and in some foreign countries injunction is completely out of the question. Also, he must recognize that if licenses are not available, competition may design around his patent or develop improvements obsoleting his invention.

Where licensing is proposed, one is still faced with many policy questions including who to license, how many to license, on what terms and when. And many factors, both business and legal, require attention in developing policy appropriate to one's business interests and yet legally enforceable and defensible.

For example, would his own business interests be served better by an exclusive or a nonexclusive licensing policy. An exclusive grant can prevent the patent owner from: Using his own invention or having it practiced for him, from meeting prior commitments, such as licenses previously "granted and agreed to be granted," and from including the invention in assets being marshalled for field cross-licensing purposes. Would this fit in his plans? Also, exclusive licenses usually carry the right to pursue infringers—would the licensor want a licensee free to do so? Furthermore, licensors can be drawn into litigation between exclusive licensees and infringers as indispensable parties, and without control of the suits. There is always a chance also that the patent will be held invalid—thus possibly affecting royalties payable to the licensor. And, if the exclusive relationship is questioned on antitrust grounds, the licensor could be cited as a co-conspirator.

A proposed exclusive licensing policy requires a thorough study of

related business interests of the licensor, serious consideration of the various business and legal implications of such a grant, and very close attention to advice of counsel.

Where a nonexclusive licensing policy is indicated, the question of "how many?" must still be faced. Here a market study of potential demand, the licensor's own expected market participation and prospective licensees best suited to supply the balance is helpful. With such information one can judge how many licensees and which ones would maximize exploitation.

Now, what about compensation? A licensor is certainly entitled to reasonable compensation for potential profits lost to a licensee. In fact, some courts have held that a patent owner is justified in seeking what the traffic will bear, but such a policy can be fraught with dangers. An often used general rule states that a patent owner is not unreasonable to expect about 25 percent of the income or cost savings his invention may produce for a licensee. Whether this is overly generous or oppressive would depend on the circumstances of each case. However, a royalty policy closely linked to the benefits bestowed by the invention is more salable and defensible.

Also, many licensees see royalties simply as cost items to be reduced or avoided as soon as possible. Thus, sound long range policy suggests that royalties should not be so great as to encourage a licensee later to challenge them or to avoid using the invention. Sometimes restraint on one's appetite can be in the interest of a long, productive license life.

Where multiple patents are involved, the simplest approach is to seek royalties applicable to total sales of royalty bearing products, regardless of how many licensed patents may apply—and whether or not any apply. This "package" approach affords a licensee the choice of how many, if any, of the licensed inventions to use and is easy and less costly to administer for both parties. Just two weeks ago in *Zenith* v. *Hazeltine Research* the United States Supreme Court held such provisions lawful if included for the convenience of both parties but unlawful if insisted upon by the patentee. However, Justice Harlan in a dissenting view stated: "In practice, it often will be very hard to tell whether a license provision was included at the instance of both parties or only at the will of the licensor." He predicted that the licensor will be careful to embellish the negotiations with an alternative proposal, making the court's unraveling of the situation that much more difficult.

I recommend taking the time and effort to develop an anticipatory policy which affords real alternatives and not mere embellishments for

the record. This can, for example, include a given large-package rate for the licensee finding that attractive, rates for identified smaller packages, and individual rates for those interested in individual patents or wanting such information for comparison purposes. Alternatively, one can devise a rate schedule including individually applicable rates and incremental rate adders for calculating a total rate where more than one patent is applicable to a given product. This latter approach has been developed and used in the General Electric Company and is described in the Winter 1966-67 issue of *IDEA*. A fully anticipatory policy may also include different rates for "total sales" and "use only" bases.

Such a policy forces one to think out the value of individual patents and groups of patents and to develop a cogent rationale for the royalties required in multiple patent licenses. It can also provide ready answers for the prospective licensee asking, "How much for less than all?" or prepared to pay for use only.

When to license is another major question. Should it be soon after an invention is conceived and possibly before technical and marketing feasibility has been demonstrated? As noted earlier, the application pendency period may be the most propitious time, especially if the licensee will undertake further development efforts. However, one contributing to development often expects preferential terms, exclusivity or a share in licensing income. An invention more fully developed can demand greater compensation and leave more options open to the licensor regarding policy to be pursued. Also, for a patent owner planning production or use of his invention, it can be sound policy to delay licensing until he has enjoyed a lead time that might assure him of a more sustainable market position. But licensing infringers, after their cost and price patterns have been set, can be extremely difficult. Timing can be critical to the development of effective policy and the receptivity of licensees.

What should the licensor-licensee relationship be? If the licensee is a current or prospective competitor, general antitrust considerations may control. However, regardless, one must consider whether to grant only bare patent licenses or also to provide technical assistance by furnishing know-how and consultation. Such assistance can expedite a licensee's assumption of a royalty-producing posture and can support substantial initial payments and guaranteed total payments, independent of applicability of patents. However, possible business losses resulting from aiding a direct competitor must be considered. Also, assistance can involve manpower commitments, expenses and legal

risks regarding provision and adequacy of services. Therefore, one considering a technical assistance program should be fully aware of its possible effects on his business and his costs and commitments. Thusly, he can judge adequacy of compensation to be received, and can be advised of contractual provisions needed to avoid assumption of unintended risks.

Now, who specifically should do all this analyzing, considering and planning? Rarely is one individual sufficiently trained and talented to handle all the technical, business and legal facets of licensing policy.

For example, the scientist or engineer closest to the invention technically may not have the marketing and other business acumen needed to investigate and appreciate the internal and external business potential of the invention. Also, he and the individual best suited to pursue the matter businesswise will usually lack the legal training and experience required for developing enforceable and defensible policy. By the same token, the legal man generally must rely on someone to answer detailed technical and business questions. Yet, all these kinds of talents are needed to appreciate the worth of particular technologies and to develop effective utilization plans and licensing policy, and, thus, a team effort is usually required.

The team should be responsible for undertaking all necessary studies and reviews and for formulating and recommending to the executive decision-making level indicated licensing policy as well as proposed implementing actions. However, one member should head the team and have specific responsibility for seeing that it operates effectively and expeditiously. This includes responsibility for fully identifying the values involved, recognizing, coordinating and integrating all pertinent business interests, obtaining all required advice and counsel and drafting specific recommendations.

In some organizations, licensing activities are substantial enough to warrant full time team positions for the technical, business and legal efforts required. In such cases, the businessman may be assigned responsibility for heading the activity. Where full-time licensing efforts are not justified, the activity may be effectively led by technical or marketing personnel to whom it is assigned as an "added responsibility." In many organizations, counsel take the lead and recommend policy and actions after obtaining technical and business advice.

In any case, it is important to establish who will initiate and lead the effort, as well as who will be responsible for formulating and presenting recommendations for the executive decision-making process. Also, that individual should enjoy a direct relationship with and

the confidence of the ultimately deciding executive, and he needs recognized access to corporate planning and activities which may be affected by or determinative of licensing policy. Finally, it should be acknowledged corporately that the matter is important to the company's activities and that the individuals involved will be, in turn, recognized for their efforts.

Ideally one's licensing policies and procedures should be calculated to facilitate the executive decision-making function and to minimize the need for enforcement of industrial property rights.

Thank you. (Applause)

MODERATOR SCHUYLER: We proceed now to a colleague from the Department of Commerce, Joseph M. Lightman. He is an international economist in that Department. He has bachelor's and master's degrees in economics from George Washington University. He has participated in the graduate international business program at American University and has lectured to law classes at both George Washington and American University on the subject of trademarks.

Formerly he was with the Department of State and the Federal Trade Commission.

He has been a member of the U.S. Delegations to the Industrial Property Conferences at Bogota in 1964 and Stockholm in 1967.

Continuing on this subject of Licensing Policy and Procedure, Mr. Joseph M. Lightman. (Applause)

## JOSEPH M. LIGHTMAN

Thank you, Commissioner.

For the past few years, The PTC Research Institute has been conducting a comprehensive investigation of licensing operations by American business, in the U. S. and abroad. The results on various aspects of this research have been published in the PTC Journal—*IDEA*.

In the current phase of our study, we are concentrating specifically

on the role of licensing in international trade. The first part of this study on which we are now working, and which I would like to discuss, concerns compensation patterns of U. S. firms' overseas licensing operations. Information in this particular aspect of international licensing is tenuous.

There are many reasons that can be attributed to the ever increasing importance of licensing abroad. But, they all boil down to one basic consideration, namely, profit. In the final analysis the licensor will usually ask himself: for how much; on what basis; and for how long can I license my industrial property rights? In this connection we have attempted to pin down specific payment patterns that U. S. firms negotiate with their foreign licensees.

Before discussing our findings, however, I would like to offer some more groundwork. First, as to the type of industrial property involved in these foreign licensing operations, there are product and process patents, as well as pending patent applications. There is also unpatented "know-how" that the licensor has accumulated, such as research skills, blueprints, formulae, production techniques, et cetera.

"Trade secrets" are also within this context. The licenses generally include trademarks and there may also be occasion among firms to license copyrights on advertising and promotional literature, manuals and other technical documents made available to the licensee. Basically, however, foreign patents and trademarks, and the right to use "know-how" abroad, are the main types of industrial property in international licensing.

The special pertinence of U. S. firms' foreign licensing operations to our international technological balance of payments is also worth mentioning.

Latest U.S. Department of Commerce figures show that in 1968 U.S. receipts from royalties, management and service fees, and other payments emanating from licensing of industrial property rights abroad, amounted to about $1,650,000,000, up from just about $1 billion five years ago. Indications are that this growth trend will continue as U. S. firms increase their interest in foreign licensing.

U. S. receipts from overseas licensing operations are roughly ten times more than U. S. payments to firms abroad for licenses.

Our questionnaire was sent to manufacturing firms in a wide variety of industries, including electronics, fabricated metals, aerospace, communications, building materials, industrial machinery, chemical products, household goods, power tools, medical and photographic equipment.

We asked four basic questions: First, what types of industrial property do you license overseas? Second, what methods of payment are most prevalent (i.e., flat fee, royalty, or both)? Third, what are your royalty rates (if the royalty basis of payment is used ) on overseas licenses and on what basis are they imposed? Fourth, where are your licensees located, including those having package-type as well as one-type licenses?

We also asked for comments on the factors entering into the company's decision on what compensation to secure from its foreign licensees.

So far we have received useable responses from about 45 of the questionnaire recipients, and it is these responses I would now like to discuss. About one-third of the firms I am talking about have annual sales of over $500 million; another third have annual sales of between $100 and $500 million, and the remaining, sales of less than $100 million. Even though some of our findings, so far, may not be particularly new in terms of your own client firm's operations, I believe you will find them of interest for comparison purposes both within and outside of your industry.

First, as to findings basically applicable to most of these firms, we note that they generally licensed their foreign-owned patents and trademarks, together with their "know-how" in a package-type deal. The royalty rates for "know-how" were generally higher than those for patents. Trademarks were seldom licensed separately, or at an individually specified royalty rate within the package. The royalty rates for patents and "know-how" included use of any trademarks within the licensing arrangement. Most agreements obligated the licensee to pay an initial flat fee and then a continuing royalty rate usually based on net sales price per unit of the licensed goods sold. As to actual royalty rates, the take-off point for negotiating purposes in many areas seemed to be five percent, with final agreement for payment being reached within about a one-to-three percentage point difference either way. In some industries, however, payments ranged as low as 1 percent of net sales value per unit and, in others, as high as 10 percent, depending on whether the license was exclusive or nonexclusive, or for an entire machine or part, or whether it included know-how and trademarks, or the size of the market, in addition to a multitude of other factors.

Geographically, most foreign licensees of U.S. firms are in the European Common Market countries. The British Commonwealth countries, others in Western Europe, Japan, Central and South America, and the Middle East are the next leading areas in descending order

of importance. There are fewer U. S. licensees in other countries of the Far East and in Africa.

Now, I would like to turn to our more specific findings on an industry-by-industry basis.

Firms in the aerospace industry, also engaged in electronics and communications equipment manufacture, assessed royalty rates of from 3 to 10 percent of net sales price per unit for patents and, in some cases up to 15 percent for know-how, on their foreign licensees, most of which are in Western Europe, British Commonwealth, Japan and Latin America.

Firms only in electronics equipment production assessed royalty rates of from 1 to 10 percent on patents and know-how; most of their foreign licensees are also in the above-mentioned geographic areas. As to the factors entering into compensation patterns, one of these electronic and communications equipment firms replied along the following lines:

> The rate of royalty is chosen on the basis of a fair reimbursement for what we are giving the licensee, in terms of new design, support, service, market and patent protection, keeping in mind the need the licensee has to keep total costs at a level that he can market the product.

Said another firm in this industry:

> Our licensing experiences have involved a variety of products, processes and apparatus. As a consequence each license has been a subjective determination with no two being identical. Many factors are taken into consideration, some of these being, not necessarily listed in their order of importance:
>
> License exclusivity,
>
> Strength of patents,
>
> Licensee's government position on royalty and license provisions,
>
> Costs associated in developing and patenting the technology,
>
> Cross license rights or feed back of licensed technology,
>
> Need for the license so as to provide a source of products in a foreign country for a domestic customer; and,
>
> Ancillary business information to be gained from the licensee's reports.

In the heavy machinery, tools and parts industries, the royalty rates on foreign licenses ranged mostly from 2 to 5 percent for patents, based on net sales price, and 5 to 8 percent for "know-how." Many licensees, in addition to being in Europe, and the British Commonwealth, were in other countries of the Far East, besides Japan. Commenting on compensation patterns, one leading machinery manufacturing firm said that it:

> [looked] for minimal royalties for our own product—we gen-

> erally discourage or refuse licensing unless return technology is involved.

Another firm in this industry noted that:

> We have no set policy as each case is considered on its individual merits. . . . Obviously, it is our goal to obtain as much as possible in royalties and most final figures are arrived at by negotiation.

Foreign royalty rates charged by companies in the primary and fabricated metals and parts industries were generally less than 5 percent of the net sales price, for both patents and know-how. This was also true for manufacturers of building materials and supplies. These firms had many licensees in Latin America, as well as Europe and the British Commonwealth. Typical of these firms' comments on their determination of payment rates was that by the firm that stated:

> We generally consider most important the production and marketing capabilities of the licensee, as it pertains to the subject matter being licensed, and negotiate the royalty rate accordingly giving due consideration to other factors such as country or countries involved, competitive situation, costs, taxes, nature of license grant, etc.

Manufacturers of household goods that have replied so far have provided no specific royalty rate figures, although admitting that they engage in foreign licensing. One firm, for example, with licensees in the British Commonwealth, Western Europe, Latin America and Africa said that its royalty rates have absolutely no fixed pattern, they vary widely by products and product sales price. Another said that its royalty rate was less than 1 percent of sales price based on production. A third company said that its rate was a 3 percent average based on the licensee's sales volume.

Our returns from manufacturers of chemical products and those of products in other industries to whom we sent questionnaires are not yet sufficient to serve as the basis for even a preliminary report.

We hope, however, that from the information presented so far, you have been able to acquire some insights into compensation patterns, and their underlying rationale, in the industries that have been discussed. While the starting point of negotiating payment arrangements with foreign licensees is usually based on a pattern followed by the company in its domestic activities, many more variables enter the foreign picture. Arrangements must be tailored to fit individual markets; they thus result in considerable variations in payment terms, perhaps having no relation or fixed pattern within a company, on a country-by-country basis.

When all of the replies are received and analyzed by The PTC Research Institute, the results, of course, will be published in *IDEA*; we hope in the Fall, 1969 issue. Your comments on our report on this subject will be most welcome. Thank you. (Applause)

## Part C—Cost of Enforcement of Industrial Property Rights

MODERATOR SCHUYLER: I could tell by the attention the audience was paying Mr. Lightman, the interest they have on this insight into royalty patterns and I am sure they were interested in your report.

I don't know whether Fred Schramm would appreciate it but 25 years ago it was my pleasure to work with him at the Sperry Gyroscope Company. Before he was employed there he was with the General Electric Company and after that he was with the North American Aviation Company.

Fred is a native of Cleveland, Ohio, has an electrical engineering degree from Case Institute, his law degree from George Washington University and his master's in law from Western Reserve University.

Fred has been practicing patent law in Cleveland and contributed as an author to the *George Washington Law Review,* the *Cleveland-Marshall Law Review,* the *Journal of the Patent Office Society,* and to lead off on the new topic of Cost of Enforcement of Industrial Property Rights is Mr. Fred Schramm.

### FREDERIC B. SCHRAMM

Mr. Commissioner, Ladies and Gentlemen: The announcement referred to the cost of enforcement of industrial property rights. These include not only patent rights but also rights in trade secrets, rights to prevent unfair competition and unfair methods of doing business and

rights in trademarks. However, we are primarily concerned with enforcement of patent rights and these comments will therefore be restricted to patent litigation.

The cost of patent litigation has long been a matter of concern to inventors, to industry and to the Patent Bar, and therefore has been one of the subjects under investigation by The PTC Research Institute of The George Washington University. In fact, two articles bearing on the subject have appeared in the spring issue of *IDEA,* published by The PTC Research Institute. One of these relates to a proposal for patents having shortened term by Mr. Bierman of New York and the other a dual patent program proposed by the Director of the Institute involving not only a special patent of shortened term but also a separation of the adjudication of validity, at least as to certain aspects thereof, from patent infringement litigation and the use of a special court for this purpose.

The scholarly paper by the Director of the Institute draws to some extent on two concepts, namely the special patent and either a special patent court or a separate validity procedure. These concepts with modifications and improvements to produce a new combination may well prove to be a meritorious contribution and produce in the words of patent lawyers a "new and improved, unobvious and unexpected result."

That so much scholarship and so much effort have been devoted to the cost of patent litigation is indicative of the seriousness of the problem.

What are the factors in patent litigation expense? Primarily they are cost of initial preparation for litigation, pretrial discovery, interviewing and exploring the facts of the case with witnesses, briefing and finally actual trial. In addition to the factual investigation and the legal investigations required, including ascertainment of the law governing the case, much time may be consumed in the preparation of briefs, including trial briefs, briefs to be submitted after trial in lieu of or in conjunction with final argument and other paper work which may be voluminous, including preparation of findings of fact and conclusions of law. Where final briefs are required and in the preparation of findings, selection and preparation of abstracts from the record are required which may be very time consuming especially if the trial has been long or if many documents have been presented or numerous depositions have been taken.

Preparation for litigation: For the patent holder this may involve obtaining the initial evidence of infringement such as buying samples

of the accused device, and running tests or analyses to determine whether the claimed invention has actually been employed by the accused party. That there has been infringement or that there may be infringement may first come to the attention of the patent holder from salesmen's reports of lost sales or information reported in advertisements, technical articles or speeches by technical personnel at conventions. More than a surmise is required that there may be infringement before the plaintiff files a complaint for patent infringement, as otherwise the plaintiff may be subjected to embarrassment when met with pretrial discovery on the part of the defendant, and uncontemplated expense of counterclaims or claims for defendants' attorneys fees.

For the defendant preparation for litigation also involves investigation which involves expense. First there is investigation of the patent and its history to determine the scope of the claims to determine whether there is, in fact, infringement. Even the defendant may need to make some tests or analyses of his product to determine whether it comes within the scope of the patent claims. In addition, and perhaps the primary aspect of investigation preliminary to litigation on behalf of the defendant, is the investigation of validity. This will involve not only the search for prior patents but also search for prior publications, and it may be necessary to make a very extensive search before invalidity is thoroughly established. Investigation as to public use will also be required, if the literature search does not prove invalidity by reason of prior invention, prior patenting, prior publication or the one-year bar. Considerable ingenuity may be required to uncover the fact that there has been a prior public use or public use bar. This may involve interviewing numerous authors of articles in the field of the patent in suit, patentees of patents cited by the examiner or turned up in the validity search, former employees of the patent owner, and so forth.

Although these initial preparations in anticipation of litigation are essential, very often they will not prove sufficient and it will be necessary to launch into one of the most expensive aspects of patent litigation, namely the pretrial discovery.

Pretrial discovery may be divided generally into two parts; which may be for convenience called paper work on the one hand and direct confrontation on the other.

The paper work, of course, includes the submission of interrogatories, requests for admissions and motions for production of documents and things under Rule 34. The paper work may be thought of as the

less expensive, or hopefully, low cost aspect of pretrial discovery since it normally does not require any travel expense. Nevertheless, expense may be very considerable measured in counsel time and time of officers and employees of the party conducting the discovery in order to ascertain what facts are relevant and what needs to be inquired into. This cost may be very considerable especially in cases with numerous interrogatories which run into hundreds and even thousands in some cases. Responding to such interrogatories and requests for admissions may be even more costly in time for the party against whom the discovery is directed.

The other aspect of pretrial discovery referred to as direct confrontation involves taking depositions of the opposing party or officers and agents of the opposing party for eliciting information, which possibly may be used as admissions, or as leads to relevant facts, in addition to obtaining the depositions of ordinary employees not having authority to bind their employer, customers, prior users, general members of the industry and so forth. Depositions are necessarily costly since they involve not only time away from business for the parties examined but extensive counsel time of both parties, costs of transcripts, time involved in evaluating the results and so forth.

Pretrial discovery is not a one-sided weapon. Both patentee and the accused may be required to make extensive use of it to establish their cases. The patentee may need pretrial discovery in order to obtain the requisite evidence for establishing infringement. Even though the accused may be perfectly willing to stipulate or submit samples or drawings of what was made or sold, this may not be adequate for the needs of the patentee. For example, in the event that the accused has numerous plants or numerous different operations the accused may not even be aware of all the acts which the patentee would consider to be infringements; or the patentee may require discovery in order to obtain sufficient facts to determine what, if any, additional claims or patents should be included in the complaint after learning of some manufacture, use or sale which gives rise to a suspicion that a claim of one of the patents of the patentee was infringed.

In addition, the patentee requires discovery to establish the value of the patent and circumstances supporting validity of the patent. Information or evidence may be needed such as corroboration of statements made in publications, advertisements, sales literature, lectures and elsewhere relating to the failures of the prior art, extent of use of the invention, recognition by customers, licensees, and so forth.

The accused also must ordinarily resort to discovery in part to

establish noninfringement and primarily to establish invalidity. Unless a clear-cut anticipation is found in a prior patent or publication, which seldom happens, very extensive probing by way of discovery may be needed to establish defenses. Discovery may be necessary in order to unearth acts of the patentee or patentees' employees or customers which will establish abandonment, public use, prior publication or prior sale bars. This may involve taking the depositions of all of the persons who allegedly had any part in the development of the invention such as testers, laboratory helpers, service shop employees, inventor's superiors and subordinates, parts suppliers, salesmen, ad writers, and so forth.

Seldom, if ever, will facts be uncovered without probing depositions of the alleged inventors and others which establish invalidity by reason of noninvention, misjoinder or nonjoinder, misleading the Patent Office or even actual fraud on the Patent Office.

Consequently, in order to be adequately prepared for trial, extensive pretrial discovery including numerous depositions may be required. Since depositions very often must be taken in many parts of the country, the traveling and subsistence expense in connection with depositions can amount to very considerable sums. In addition to the use of depositions for unearthing facts needed by the party to establish his case, they may also be needed to provide evidence in support of the party's case since the deponents may not be amenable to the process of the court or even if they would be willing to come to the trial, enough trial time may not be available for examining live witnesses on all ramifications of the case.

Trial: Trial time of course is also a very important aspect of the cost of patent litigation. Even when the invention is ostensibly not so complicated that a great deal of time should be required for explaining it to the court and explaining the infringed devices to the court and explaining the prior art, still considerable trial time may be required owing to the collateral issues which need to be presented which help to establish either validity or invalidity of the patent such as the numerous bits of evidence which will go to show recognition, acceptance, and value of the invention, which go to show prior use, obviousness, insignificance and actual lack of employment of what the inventor has contributed, in addition to the technical defenses as to defective claiming, failure to name the true inventor and equitable defenses. The testimony with regard to infringement and prior art will ordinarily require testimony of expert witnesses who usually need to be present throughout the trial or a large part of the trial on a

standby basis in order to give relevant testimony and not be surprised by testimony of the opposing party or by cross-examination.

Conclusion: Thus, there are many factors which make for the unavoidably high cost of patent litigation. If one or more of the factors in the cost could be eliminated or reduced it may be that something could be accomplished. Perhaps something could be accomplished by attacking one of the factors at a time such as the issue of validity, or separating technical defenses from defenses on the merits or separating equities and defenses on the merits.

Another factor to consider is the possibility of modifying the general rules of pretrial discovery in such a manner that their cost and extent in patent cases can be reduced, e.g., by resorting more generally to compulsory exchange of information. Simplified procedures for shorter term patents may help.

Could we have optional streamlined pretrial and trial where the amount claimed was less than a certain amount, comparable to the distinction between conciliation courts, municipal courts and superior courts in contract and tort cases?

Should state courts have jurisdiction of cases under the patent laws when less than $10,000 damages was claimed?

These are problems which you gentlemen will have to face in an effort to make the patent system workable and useful. Thank you. (Applause)

MODERATOR SCHUYLER: There seems to be a thread of an idea in which I have a particular interest. Dr. Siegel made reference to the fact that small firms are built not so much on basic patent protection but on know-how, whether it is patentable or unpatentable.

Mr. Schramm has referred to Dr. Harris's suggestion of a special patent or petty patent of limited scope and reduced term. The Patent Office is faced with the problem of criticism that it is issuing too many invalid patents, that the courts, some of them with 100 percent invalidity records, are casting a cloud on the entire patent system.

My own experience has indicated that many a small business has been built successfully on what is probably an invalid patent or one that would be held invalid.

So, I leave that thought with you. Perhaps Frank Neuhauser this afternoon can find time to give you an opportunity to discuss it.

Our next speaker does not need an introduction, but may I return

the compliment to him that he paid to me about the right man being in the right job.

I suspect some of the people in this room are responsible for the selection of Dr. Harris to spearhead this particular effort of the Institute in which he has done such a wonderful job.

So, I present to you the real man who makes this Institute go, Dr. Harris.

**L. JAMES HARRIS**

Thank you, Mr. Commissioner.

The problems relating to protracted and complicated patent cases have received considerable attention by the Bench and Bar. However, there has been no broad-based study undertaken to determine specifically how to increase the certainty and reduce the delay and expense in patent litigation, and the modifications that might be desirable. Accordingly, in planning its program and endeavoring to direct its projects to problems of the greatest immediate urgency and the greatest practical interest to those concerned with industrial property, the Institute inaugurated a major study designed to draw together relevant factual information and expert opinion on the cost of enforcement of industrial property rights. This study not only explores the cost of litigation, but also examines the relation of technical subject matter to cost of suit, the composition of total cost in a sample of litigated cases, the factors subject to judicial control and changes in approach that might significantly decrease cost and delay in litigation.

From our initial efforts in this area we were impressed with the close relationship between the critical problems of the Patent Office and the major problems of patent litigation. There also appeared to be a need for (a) longer run measures for improvement in legal procedures relating to the system while we pursued (b) more immediate solutions. Moreover, we were convinced that progress for both the short and the longer range could be advanced by tapping the seasoned judgment and intimate experience of practitioners. These factors suggested the plan we are following in this study.

In the current phase of this study we have been surveying a selected

sample of patent experts in industry and in private practice, seeking (a) their opinion and experience with respect to the system in effect today, and (b) their reaction with regard to a proposed Dual Patent Program—a long-range proposal stemming from the Institute's continuing examination of the system.

Concerning the system in effect today, we asked these experts what explicit procedural cost-cutting opportunities they would propose. We asked them what their opinion was on the relation of technical subject matter to patent suits, and we asked them to furnish us with an estimate of the composition of total costs involved in one or more litigated cases with which they have been associated, preferably one large complex case, one average case, and one simple case. The respondents were asked to break costs down, if possible, into eight categories:

(1) Preliminary investigation of prior art;
(2) Preliminary legal studies and evaluations;
(3) Discovery undertaken at the initiative of the reporting party;
(4) Discovery undertaken at the initiative of the opposing party;
(5) Sums paid for expert testimony;
(6) Direct expenses of time in court;
(7) Cost of preparing briefs;
(8) Cost of appeals, including briefs and argument.

We also suggested that these costs could be broken down by ascribing each to (a) outside counsel; (b) inhouse counsel; (c) company personnel other than counsel; (d) outside personnel other than counsel.

The data obtained on cost breakdown, as you would expect, do not permit conclusions with respect to each particular type of cost requested. However, the breakdown coupled with other responses permits certain general tentative conclusions at this time. The basic conclusion regarding cost is that the breakdown is significantly affected by the extent and amount of discovery. The proportion of costs attributable to discovery ranges anywhere from 30 to 60 percent of the total cost of the cases. Discovery appears either to increase the cost of the case and thus lower the relative percentage of the cost incurred for other elements or, alternatively, if discovery is fairly limited other costs appear to be relatively more important. The data suggest that discovery generally tends to be a very large proportion of total cost with the prelimi-

nary investigation of prior art and preliminary legal studies and evaluations taking anywhere from 5 to 15 percent of the total cost. Another highly variable cost appears to be the sums paid for expert testimony which can account for anywhere from 5 to 25 percent of the total cost. Trial expenses, cost of preparing briefs, and costs of appeals, et cetera account for approximately one-fifth of the total expenses.

The responses given on cost figures for the relatively simple case, the average case, and the relatively complex case, of course, varied widely depending on the particular circumstances of each case. However, the distribution of the cost figures suggested that certain rough conclusions could be drawn with respect to the overall cost of enforcement. The data suggests that a relatively simple case is not likely to cost less than $25,000 and on the average is likely to cost about $50,000. An average case is not likely to cost less than $80,000 and generally is likely to cost in the neighborhood of $110,000. A relatively complex case is not likely to cost less than $200,000. The average for complex cases may not be as meaningful because of one or two extremely expensive cases involving millions of dollars. Therefore, we would venture that most complex cases cost less than $500,000 but a few will rise far beyond that amount. Mr. Dennis Meyer will tell you about the suggestions of the respondents concerning cost-cutting procedures and their other comments concerning the patent system in effect today.

Now I should like to present briefly the Institute's long-range proposal as reported in the most recent issue of *IDEA,* The Patent, Trademark, and Copyright Journal of Research and Education, and to give you some of the reaction of selected patent experts to a preliminary working draft of this paper, which was sent to them for review and comment.

Our long-range proposal consists of a Dual Patent Program with the following major objectives:

(1) To encourage inventions, investment in their development, and their commercial utilization;

(2) To provide the independent inventor, the small businessman and the larger company an opportunity to choose patent protection more suitable to their peculiar needs by offering two types of patents: a "long-term" and a "short-term" patent;

(3) To make the patent a much more dependable property by introducing the concept of "incontestability";

(4) To simplify the method of challenging a patent after issue, and reduce the sometimes diverse results of multiple court contests, by establishing a Court of Validity to act on questions of validity;

(5) To place greater reliance on the Patent Office product by grounding the concept of "incontestability" in a high quality of Office examination.

What specific proposals are suggested from the foregoing major objectives? It is in the national interest to transfer more of decision-making on patent validity from the general courts to (a) the Patent Office where the technical expertise is accessible and the climate is more favorable; to (b) a new special Validity Court, provided that the procedures in the Office are arranged to assure the issuance of high quality patents; and to (c) interested people outside the Office who have the incentive and information to perfect the Patent Office search. There also appears to be a need for two distinct patents with reliability tailored primarily to the unique requirements of two different publics. It is therefore proposed that a long-term, 17-year patent, "incontestable" five years after issue, and a short-term, 7-year patent, "incontestable" one year after issue, be instituted. During the first five years of the long-term patent and the first year of the short-term patent, they would continue to be subject to current practice and procedure, except that the issue of validity would be tried only before a Validity Court. After one or five years, as the case may be, the patent would become "incontestable" with respect to validity and could be challenged before the Validity Court on but three grounds—prior invention, fraud or deception, and the patentee's own publication, use or sale more than one year prior to filing. Prior invention involves complete anticipation; it does not comprehend the obviousness concept. Infringement, antitrust, and misuse issues would continue to be treated in the general courts in accordance with current practice.

If a question of validity arises the U.S. District Court's proceedings could be suspended while the special Validity Court takes cognizance of the question, unless the district court determines validity is raised in bad faith or that the patent is valid; or, unless in furtherance of justice and expedition, the district court decides to retain jurisdiction and render its decision on infringement before referring the case for an opinion on validity to the Validity Court. Thus, when the district court questions validity (where that court believes the patent to be invalid) but validity and infringement are inseparably interwined, it

can retain jurisdiction to decide whether the patent is infringed were the patent, subsequently, to be declared valid by the Validity Court. The district court could refer the case at any stage to the Validity Court for decision on validity. After decision by the special court, the district court would resume its jurisdiction of the case, if necessary, giving full and complete recognition to the opinion of the special court.

The commencement and length of the suggested period of "incontestability" for the short-term patent and the commencement of the "incontestability" period for the long-term patent are based on empirical information on the rapid commercial use of patented inventions. It appears from studies of The PTC Research Institute that approximately 40 percent of commercially used patented inventions are put to use before an application is filed, another 50 percent before issue, and most of the remainder within three years after issue. The bulk of after-issue first-use clusters around the first year. If a patented invention is not used within five years after issue, there is little likelihood it ever will be. It also appears, from an examination of foreign patent maintenance statistics, that patents are very likely to be in commercial use if maintenance fees continue to be paid five or more years after issue. In this connection, it may be of some relevance that Germany, the Netherlands and Japan previously limited revocation proceedings to five years after the patent was granted.

If the one-year period after issue is considered the first critical period for first use of the patented invention and the five-year period after issue the final critical period, the short-term patent would be accorded an additional two years, for a total of seven, all "incontestable" except for the first, before going into the public domain. This would coincide with the first of the two seven-year apprenticeship terms on which it is alleged the 14-year colonial, and the early state and federal patents were based. The short-term patentee relinquishes the remaining ten years of the patent period in return for "incontestability" one year after issue. (This one-year period after issue would correspond with the period allowed to copy claims for interference purposes.) The short-term patent would be subject initially to the full compass of current defenses, as well as to a new type of "Declaratory Judgment" action, without the precondition of an existing case or controversy, for a period of one year after issue. The long-term patent, which most likely would be used by the larger companies for the long-lived market and for extended developmental purposes, would be subject to current defenses and the new type of Declaratory Judgment

action for a much longer time, for a five-year period after issue. For the unsophisticated invention, directed to the short-lived market, there is little likelihood that first use would occur later than one year after issue and the chances are so slim of first use for any invention after five years that, other than the invention already in use, only the invention requiring extended development or the patent obtained as a gamble on future use is likely to benefit from the long-term patent's "incontestability" period; innovation that would otherwise be lost to the economy would thus be encouraged.

In actions commenced in the contestable period, validity would be ascertained by the special court with regard to the scope necessary to avoid anticipation or obviousness. The district court would have occasion to examine the prior art when it is alleged that an accused product or process is obvious in view of that art. Also, if the district court decides that prior art introduced by the defendant, which had not previously been before a Validity Court, challenged the validity of claims, the district court could refer the question to the special court, either before or after the district court decided the question of infringement. Thus, the district court could utilize the technically equipped special court to help prepare its groundwork.

In actions begun in the "incontestable" period, validity could be questioned only on the basis of anticipation. This would be determined by the special court. Even in actions begun in the contestable period, evidence of newly discovered prior art, other than to demonstrate anticipation, would not be acceptable in any court if presented after the close of this period. The question of infringement would be decided by the district court, as in actions begun in the contestable period, on whether the alleged infringing subject matter is within the scope of the claims. But the district court would be limited in its deliberations in actions begun in either period to prior art considered by the Patent Office, or by courts during the contestable period. Judgment with respect to the doctrine of equivalents would therefore be made by the district court in view of that prior art. The question of obviousness of the claims, however, would not be open for consideration in actions begun during the "incontestable" period. If the special court at any time finds the claims invalid, the decision would be *in rem* and future litigation on such claims would be foreclosed.

The opinions of the Validity Court would be binding on the general judiciary throughout the country. To accomplish this, the special court would be endowed by statute with requisite validity authority, subject only to appeal to the CCPA. During the "incontestable" period all

decisions of the Patent Office with respect to prior art, which was actually before the Office, would be considered conclusive. Utility and formalities, including adequacy of disclosure, would not be challengeable in the "incontestable" patent. One year after issue and five years after issue infringers would be estopped "by conduct" from attacking the "incontestable" short-term and long-term patents, respectively, as invalid on such grounds. The one-year technical bars of publication, use or sale prior to filing would be unavailable as defenses against the "incontestable" patent, except when the actions responsible for raising the bars are those of the patentee. Proof of prior invention evidenced by publication, use, sale or otherwise, would be admissible at any time to challenge validity.

Thus the short-term patent and the long-term patent would be subject to current procedures during their processing as an application by the Patent Office. This would include interferences, appeals, and any other practice that exists or may hereafter be introduced. The applicant would request either the short-term or the long-term patent before issue and the choice would be final.

But more than technical competence is required to write opinions on patent cases and, therefore, the members of the special court would have to be legally as well as technically trained and experienced. It is assumed that the Validity Court would make good use of available legal procedural machinery, such as pretrial conferences, to expedite litigation and keep costs down. Much of the law on patents has been contributed by the non-patent judiciary in the past, and it is the general consensus that this contribution has added depth and breadth to patent law. The members of the special court would serve temporarily, from time to time, as district judges, and would be encouraged to draw on the whole body of law so that the precedents they would utilize, as well as the decisions they would make, would derive from the larger general legal experience of the judiciary. The members of the Validity Court would be encouraged to participate in the seminar system introduced by the Institute of Judicial Administration and the classes conducted by the Committee on Trial Practice and Technique of the Judicial Conference of the U. S.

One of the major objectives of the special Validity Court would be to simplify the patent case. Patent experts have voiced concern that certain provisions of the Federal Rules of Civil Procedure, such as those relating to discovery, are unduly extensive and burdensome when used in patent cases. Because of their unique background and experience, the judges on the Validity Court should be better able to

safeguard the parties from abuse by detecting and rejecting false or sham inquiries and confining pretrial procedures to genuine, bona fide issues. The manner in which these, and other, provisions are used by the court to expedite the disposition of litigation, should also provide an example for other federal courts of how the rules of procedure could be made to work more effectively in patent cases.

The general reaction to a preliminary working unpublished draft of our proposal by a selected group of some 65 experts to whom it was submitted was, on the whole, quite favorable. Almost all the respondents who commented, at the very least, recommended publication and discussion. Other comments ran from "deserves serious consideration," to "is in the right direction," "such constructive thinking is needed," "has merit," "is imaginative," and "goes to the heart of the issue." Responses to specific questions showed a clear difference of opinion, except on the effect of the proposal on Patent Office product, where there was a marked agreement among those responding: Only money, men, and machines can improve the Patent Office product—and Congress isn't providing these soon! Also there was strong approval of limiting appeal from the Validity Court to the CCPA. The experts were equally divided, for and against, on the effect of the proposal on the cost of litigation, their reaction to the "incontestability" concept, to dual patents, and to the Validity Court. There appeared to be no substantial difference in the responses of company patent attorneys from their brethren in private practice. Even of the relatively small number of respondents, seven, who added the caution that validity and infringement were sometimes intertwined, three were in private practice and four were company-employed.

I should like to make three points concerning the comments of respondents: (1) They responded to a preliminary draft of a working paper which incorporated concepts that are constantly being reexamined and improved. (2) With respect to patent quality of the Patent Office product under the proposed program, private individuals and companies would be more likely to supply information that might not be available to the Patent Office than in an opposition procedure. The concept of "incontestability" would promote, in a sense, a cumulative enhancement of patent quality: "Incontestability" would encourage examiners to produce a better product because of their greater responsibility and the watchfulness of interested people outside the Patent Office who would be influenced by the prospect of "incontestability" to more vigilantly protect their interests. (3) With respect to the comment that validity and infringement were sometimes inter-

twined: Under the proposed program an allegation of invalidity would be tried before the special Validity Court, but only when the district court believes the patent to be invalid, and at the stage of the proceedings (even *after* a determination on infringement) when the district court considers it most expeditious and fair to refer the case.

The proposal in a broad sense (a) seeks to move the balance of patent validity in litigation a little bit more towards center (at present the balance appears to be unduly weighted in the defendant's favor, that is, toward invalidity); and (b) to present a feasible overall plan which would shift more of the patent burden from the general courts to the Patent Office, to a new special court, and to the interested public (such a plan would have a better chance to obtain appropriations from the Congress for Patent Office documentation and people).

We propose to correct the imbalance by (a) removing consideration of Section 103 by the courts at the earliest stage it appears to be constitutionally possible, and by (b) providing reconsideration, or perhaps better, decision, of patent validity by the technically and legally trained members of the Validity Court where the district court doubts validity.

The proposal meets the strict standard of invention set by the courts because the concept of nonobviousness in Section 103 is comprehended in the Patent Office examination for both types of patent, and continues to prevail as a condition for validity during the first year after issue for the short-term patent and the first five years after issue for the long-term patent. Of course, some courts may depart somewhat from anticipation toward obviousness when interpreting prior invention during the "incontestable" period. But this is not a disadvantage since we are not planning for perfection. We are only seeking to redress an imbalance with the understanding that judges will still be able to apply their discretion to future products that occur in the "incontestable" period whose nature may be entirely unpredictable before then.

There is no question that this proposal which comprises the Dual Patent Program would be a considerable procedural change in the American patent system, but it is offered because it appears to be a sound way of fulfilling the substantive objective of our system under present conditions. As I stated at the outset, the purpose of this proposal is long range, to provide guidelines for the future.

Thank you. (Applause)

## LUNCHEON ADDRESS

# Patent Licenses and Antitrust Considerations

RICHARD W. McLAREN*

I AM GRATEFUL FOR THE OPPORTUNITY to address you today on a subject—any subject—other than conglomerate mergers. I do note, however, that the first presentation on this afternoon's agenda is entitled "Conglomerate Merger Industrial Property Problems." It pleases me to find that someone other than the Antitrust Division has problems with conglomerate mergers.

Patents and conglomerates are, at first blush, worlds apart. I might point out, however, that one of the things which we are seeking to preserve by bringing actions against some of the conglomerates is competitive innovation. In this respect, and contrary to the usual thinking about the relationship between patents and antitrust law, the patent law may be of assistance to antitrust enforcement. A patent is,

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of course, a reward for competitive innovation in the form of the right, for 17 years, to exclude others from making, using or selling a patented invention. By making available this reward, the patent law provides one method by which small and medium size companies may effectively compete with the extremely large and diversified firms which have resulted from the recent merger trend. Thus, both in purpose and effect, the patent system and the Antitrust Division's stand on some of the recent conglomerate mergers are entirely compatible.

Let me turn now to my principal subject—"Patent Licenses and Antitrust Considerations."

It has long been fashionable to say that our patent system is inconsistent with our antitrust laws. As I just pointed out, I do not believe that this is necessarily true in all cases. The basic purposes of both frequently coincide. The patent law seeks to stimulate innovation through reward; the antitrust law seeks to preserve innovation through competition. However, we must recognize that the two systems do, at times, conflict. However, this conflict arises primarily where the patent law makes legitimate conduct which otherwise would be a violation of the antitrust laws. It does not seem to me that there is any conflict with respect to practices which, although they may have something to do with patents, are beyond the legitimate scope of the patent monopoly and are therefore condemned under the antitrust laws. I am speaking of such practices as tying the sale of patented products to the purchase of unpatented material, agreements to refrain from challenging the validity of patents under which no license has been granted, agreements not to deal in goods which compete with products covered by the patent, and the like. It has long been recognized that the legality of practices such as these is to be measured under the antitrust laws and not the patent law. As early as 1912, in a case commonly known by the delightful name of the *Bath Tub Trust* case, the Supreme Court said:

> Rights covered by patents are indeed very definite and extensive; but they do not give, any more than other rights, a universal license against positive prohibitions. The Sherman Law is a limitation of rights, rights which may be pushed to evil consequences and therefore restrained.

The illegality of the practices to which I just referred, is, I am sure, well known to all of you. The notion that because a patentee can refuse to license his patent at all, he can attach any condition he pleases to his license, was fortunately a short-lived one.

I presume that a discussion of the type of patent licensing practices which the Antitrust Division is or will be challenging would be of

greater interest to you than a discussion of decided cases. Here is how we approach the matter.

In considering whether to attack a particular licensing provision or practice, we ask ourselves two fundamental questions. First, is the particular provision justifiable as necessary to the patentee's exploitation of his lawful monopoly? Second, are less restrictive alternatives which are more likely to foster competition available to the patentee? Where the answer to the first question is no, and to the second yes, we will consider bringing a case challenging the restriction involved.

In general, as I have indicated before, I anticipate that we will be bringing cases which seem to us to be logical next steps in the development of the law. For example, we contemplate challenging under Section 1 of the Sherman Act patent licenses which require an assignment grantback of all improvement patents. It is our view that the right to a non-exclusive license back on improvements may be a legitimate provision in the licensing of a basic patent but that a grantback requirement tends unduly to extend the patent monopoly and to stifle research and development efforts on the part of licensees, contrary to the public interest. Although we think it is distinguishable, the Supreme Court's *Trans-Wrap* decision will in some degree be called into question by this challenge.

Other practices which are either presently being challenged, or which I expect will be questioned in the future, include some types of field-of-use licenses, restrictions on the form or manner of resale of patented products, and contractual provisions which tend to inhibit the granting of future licenses.

As to field-of-use licenses, there may be some justification for a patentee reserving for himself a well-defined field out of the various potential applications for his invention. On the other hand, it is difficult to see how justification can be shown for the type of restriction which divides fields of use among licensees who otherwise would compete. Such restrictions in effect grant a submonopoly to each of the licensees, and all competition among those who would be likely competitors is eliminated. In due course, I expect that we will bring a case directly challenging restrictions of this type.

Some of those who seek to justify all field-of-use restrictions may point out that such restraints are likely to arise where there is a substantial disparity in the value of the invention as applied in various non-competing end uses. A patentee, if he is to gain a maximum royalty, will try to charge different royalties depending on the market served. Royalty discrimination, it is argued, is inherent in the lawful

patent monopoly and depends for its success on field-of-use restrictions. However, it is not necessary to eliminate, by contractual restriction, all competition between licensees, in order to achieve maximum royalties from various end-use applications. In some circumstances, the patentee may be able to maximize his return by, for example, establishing different royalty rates for the various uses and then offering to license freely throughout the range of applications.

As you know, there have been proposals to eliminate some of these restrictions by legislation. For example, the report of President Johnson's Task Force on Antitrust Policy—the so-called Neal Report—contained some suggestions for the promotion of competition among patent licensees. That report argued that the patentee's reward in the form of royalties would be maximized if the patented invention is exploited under competitive conditions. In order to assure competitive conditions, the report recommended new legislation requiring that a patent owner who has once granted a license with respect to his patent must license all qualified applicants on equivalent terms. The proposal does not involve compulsory patent licensing. A patentee may decline to issue any licenses at all. He may reserve to himself the practice of the patent in one or more fields. But once he has granted a license, the suggested legislation would require him to make the same license available to all comers.

The Division has not yet taken a position, and does not at this time contemplate taking a position, with respect to this recommendation. As in the area of conglomerate mergers, I believe that we should see what results can be accomplished under existing law before asking Congress for new legislation.

Somewhat related to field-of-use restrictions are provisions in some patent license agreements, primarily in the pharmaceutical field, which prohibits sales of the patented product in bulk or under generic names. Licensees restricted by such prohibitions cannot sell the patented product any way other than, for example, in dosage form or under stipulated trade names. We have recently brought several cases attacking these restrictions. Where licensees subject to such restrictions are in fact *purchasers* of the patented product, our task is easier. It has long been held that the first sale of a patented product exhausts the patent monopoly and that no restrictions can be placed on the purchaser either with respect to the *price* at which he can resell or the *territory* in which he can resell. There appears to be no justification for any similar restriction on the *manner* in which a licensee can offer for resale a product which he has purchased from the patentee.

More difficult, perhaps, are situations in which the licensee is in fact the *manufacturer* of the patented product. We have recently brought two cases (*Sterling-Squibb* and *Syntex-Searle-Upjohn*) in which we challenge restrictions on manufacturing licensees which prohibit them from selling the product in any way other than in dosage form. These restrictions seem to have serious anticompetitive effects. For example, such restrictions seem to limit price competition by keeping the products out of the hands of repackagers and others who are "unreliable" or "undisciplined" in their pricing practices. Justifications for restrictions of this type seem no stronger than those offered with respect to pure field-of-use restrictions.

With regard to restrictions on grant of additional licenses, we will continue to attack contractual restrictions which have the effect of precluding the grant of additional licenses without the consent of existing licensees. This type of contractual arrangement, as you probably know, was condemned nearly 15 years ago in *United States* v. *Krasnov*. The Court in *Krasnov* held illegal a series of licensing provisions which created a situation in which no one—the patentee, the assignee, or the licensee—could create any rights under the patent in any other person without the consent of the other two. We believe that the rule of the *Krasnov* case is a healthy one for competition. We believe that it is desirable to preserve intact the patentee's power to grant licenses unilaterally, when and to whom he pleases. This power can be maintained either in the patentee or in an assignee or in an exclusive licensee who has the right to grant sublicenses. One of my predecessors suggested—and I think rightly—that the rule of *Krasnov* should be extended to make unlawful any sole or exclusive license without sublicensing rights. An attack on a *Krasnov*-type arrangement was recently made in *United States* v. *Glaxo Group, Ltd.*, a case filed last year in the District Court for the District of Columbia.

A final type of licensing restriction which you might expect to give us some concern is a provision giving the patentee the power to fix the price at which his licensees can sell products manufactured by the licensees. This practice, of course, was held lawful in the old *General Electric* case. Since that decision, the rule of *General Electric* has been getting narrower all the time. As you know, the Supreme Court has twice split four to four on the issue of whether to overrule the *General Electric* case altogether. In the more recent effort, *United States* v. *Huck Manufacturing Company*, a procedural error in the lower court hampered the government's position. We believe that, when the question is properly brought to the Supreme Court again, the Court

will completely overrule the *General Electric* doctrine. Apparently our confidence is shared by members of the bar who have occasion to draw up patent licenses, since we seem to be having some difficulty in finding an appropriate case in which to present the question to the Supreme Court.

One other development will be of interest to you and to the Patent Bar in general. In the *Glaxo* case, which I mentioned earlier, we are seeking not only the elimination of unlawful restrictions in the license agreements, but we are also challenging the validity of the patent itself. Incidentally, we had a slight setback in this program yesterday when the district court ruled that the government had no standing to challenge validity in the absence of fraud. However, in the course of other antitrust attacks on licensing restrictions, we will continue to assert challenges to the validity of patents when we believe this to be justified. An invalid patent is a much greater threat to competition than any of the restrictions to which I referred, since any anticompetitive restrictions which we might countenance to encourage innovation in the case of a valid patent become unlawful if our assumption of a valid patent is incorrect. As Judge Frank of the Court of Appeals for the Second Circuit once stated, "an invalid patent masquerading as a valid one is a public menace . . . ."

We also believe that attacks on invalid patents will have a beneficial effect on the quality of patents generally. Evidence of the government's very willingess to sue will tend to promote a high standard of integrity among those prosecuting patent applications and thereby provide additional protection to the public against the burden of invalid patents. Therefore, where we believe the invalidity of a patent to be clear, we will not hesitate to attack it. And, of course, where we believe a patent has been procured by fraud, we will bring suit to cancel the patent grant.

In conclusion, I would like to say this. I welcome opportunities such as this to let you know what we in the Antitrust Division are thinking. I hope that it is helpful to you, because in a sense we are asking the private Bar to help us get compliance with the antitrust laws. Antitrust works as well as it does not just because of the threat posed by the enforcement authorities; it works because the private antitrust Bar—well-informed and highly perceptive—counsels compliance.

With respect to patents, we rely on the private Bar not only for compliance but also for enforcement against violations. Perhaps in no segment of antitrust law are the activities of the private Bar as important in the development of the law as in the patent-antitrust

field. To illustrate, of the 21 patent-antitrust cases discussed in the ABA's 1967-1968 *Antitrust Developments,* 20 of them are private actions. The government was involved in only one and that was the Federal Trade Commission's proceeding against Pfizer and American Cyanamid involving the patent on tetracycline, a broad-spectrum antibiotic drug. I am not suggesting, of course, that you automatically file an antitrust counterclaim every time one of your clients is sued for patent infringement. I am suggesting that you be aware of the antitrust implications of patent licensing and particularly aware of the current thinking in the Antitrust Division with respect to specific provisions commonly found in patent licenses.

I hope I have been able to convey to you my belief that there are going to be some substantial developments in the patent-antitrust field in the next few years. I am sure that you share my hope that these developments will take into account both the realities of the patent licensing problem and the desirability of a competitive economy. As I said at the outset, the so-called conflict between the patent law and the antitrust law may be substantially overstated.

## Part C—Cost of Enforcement of Industrial Property Rights, Continued

DIRECTOR HARRIS: Commissioner Schuyler is leaving for Venice tomorrow for the AIPPI meeting. It isn't every day that one can get a business occasion to visit Venice, so Frank Neuhauser has graciously accepted our invitation to moderate the concluding portion of the first session. Mr. Neuhauser is Chief Washington Patent Counsel for G. E. and one of the leading lights of the District Patent Bar. Since he has been in Washington he has developed many a patent attorney from green neophyte and made many friends for the company. He is very active in association affairs. In fact, he is President Elect of The American Patent Law Association. I am pleased to introduce Mr. Frank Neuhauser. (Applause)

MODERATOR-COMMENTATOR NEUHAUSER: Thank you. Lou called me yesterday and pointed out that Bill Schuyler had to leave and asked me if I would substitute at the end of the program. I did it with some reluctance, because nobody likes to follow a top act.

Since the Commissioner is not here I can say without embarrassing him that he is a moderator par excellence. The only thing I hope to prove the rest of the afternoon is that PTC's bench strength, like that of the Senators, is pretty thin.

We are now at the end of the part of our program dealing with Cost of Enforcement of Industrial Property Rights. The next speaker on that subject has degrees of law, a Master's degree in taxation from Georgetown University, and is a member of the Bar of Ohio and the District of Columbia.

He is a former attorney advisor to Chief Judge Norman Tietjens of the United States Tax Court and has lectured at a number of institutes at Georgetown, George Washington, and Virginia Law Schools.

Closer to home, he is at present, and has been for the last several years, Chairman of the Taxation Committee of the American Patent Law Association, an acknowledged expert in that field, and businesswise a partner in the firm of Baker and McKenzie.

He will talk today on the major problems in litigation from a cost standpoint. Mr. Dennis Meyer. (Applause)

**DENNIS MEYER**

Thank you. Mr. Schramm has recounted earlier the various major areas of patent litigation. Thereafter, Professor Harris presented to you a long-range proposal designed to reduce hopefully the cost of patent litigation, expedite such litigation and, in certain cases, avoid extensive litigation.

As a member of the Institute primarily charged with the responsibility of handling tax matters, I have participated in the preparation of the various reports on taxation of licensing internationally. When Professor Harris commenced formulation of this project, I asked to participate because of my basic unfamiliarity with the complexities of patent litigation. Although I was aware of the fact that such litigation often extends over a number of years and for the most part is quite expensive, I had no realization where the actual costs are generally incurred. My involvement in the project, then, was principally to contrast my experiences in tax litigation and the costs thereof with reports obtained from various corporate and private practitioners that incorporated actual costs incurred in patent litigation.

As Professor Harris reported, a number of questionnaires relating to the cost of litigation were solicited, and you previously have heard from him the percentage figures of the major cost areas.

In analyzing these responses, the one point that surfaced in almost every response from the standpoint of a current cost problem is discovery. This was surprising in comparison to tax litigation. For example, in the Tax Court where the major volume of tax litigation occurs, there is, in fact, no discovery procedure. The Tax Court is an administrative court escalated to that status from the Board of Tax Appeals. The judges of the court conduct the proceedings in a direct manner to the extent that parties are encouraged to stipulate, and in certain situations the court will refuse to hear a case if the parties have not agreed to uncontroverted facts.

In the patent area, the courts apparently have granted great latitude to the parties in discovery proceedings, probably greater latitude, according to many of the respondents, than is necessary.

Many of the responses suggested that the court name a special master to preside over discovery proceedings. It would appear that if a judge has agreed to preside over a patent case he should not then divest himself of his judicial responsibility during the discovery period. During that period, the judge should exercise the discretion he clearly possesses to limit the scope of discovery to the issues.

The general view of the respondents is that if the court takes a better hold on the case during the discovery period, substantial cost savings could result without any substantial effect on the overall record the litigants are attempting to build.

One respondent also pointed out that the filing of antitrust counterclaims resulted in long fishing expeditions during the discovery period. This is a matter that could be easily handled by the court without any changes in the procedural rules.

The reasons for incurring such substantial costs apparently vary. As one respondent reported, the costs are generally directly proportional to the complexity of the case. In another response, an attorney indicated that the costs are proportional to the dollar amount involved in the case; namely, if there is a substantial amount at issue, whether measured by current or future income, counsel is very cautious in building the record. This, of course, may explain the proliferation of costs during the discovery period.

The only real generalization that can be drawn from an analysis of these responses is that the cost problem can probably be remedied in part by more active participation by the court during the discovery period to make certain that the metes and bounds of the case are respected by opposing counsel. (Applause)

## Part D—International Experience and Problems

MODERATOR NEUHAUSER: Mr. Meyer, I talked with the participants just before we started, having calculated the difference between 2:00 and 3:00 in terms of minutes and not wanting to infringe on the next program. Our objective is to finish by 3:30 and Mr. Meyer has certainly done his part.

I think it has been an advantage which you will observe to have a

little cross-pollination such as his experience with the different kinds of operations in the tax area.

Bringing that kind of experience to bear in the patent area may provide a possible solution to what everybody seems to agree is a key to the cost of litigation, namely the discovery problem.

Others have commented on the point Mr. Meyer mentioned about what a strong judge running the trial with a reasonably firm hand can do.

We now turn to Part D, and the last part, except for the discussion and question period. This is on the general subject of "International Experience and Problems."

Our first speaker is Robert W. Ball. Mr. Ball was born in Canada, but for some 30 years has been a naturalized citizen. His background mixes the two of these as you will see.

He is registered before the U. S. and Canadian Patent Offices. He has an undergraduate degree from the University of British Columbia, a Ph.D. from the University of Illinois and an LL.B. from Georgetown. He was with Du Pont for 39 years before retirement in April of this year, some ten years of that as a research chemist and the remainder as a patent attorney in their legal department. He has drafted many of their patent and technical agreements, participated in the Du Pont antitrust chemical case (*U.S. v. Imperial Chemical Industries, Ltd.*) and in the last 11 years before his retirement was the foreign patent counsel responsible for most of the legal aspects of Du Pont's patent and technical activities outside of the United States.

I don't believe I have to go further to convince you that he is eminently qualified to discuss the general subject of Part D. Mr. Ball. (Applause)

**ROBERT W. BALL**

Thank you, Mr. Neuhauser.

After that introduction I guess I had better get on with the job. However, in the 15 or 20 minutes allotted to me I cannot even catalog the enormous variety of problems connected with patenting and exploiting inventions and technical information abroad. A one-day

International Patent Protection Conference at George Washington University on April 22 dealt with certain facets of foreign patenting, but much more time would be needed to explore the subject fully. I shall not attempt to do more than highlight certain practical aspects.

At the outset, let me say that I have seen no indication that we are placed at an unfair advantage when we attempt to patent or exploit our inventions abroad. Sometimes we do not get the foreign patent protection we ought to have gotten, but such failures are due not to discrimination against us but to lack of knowledge—of the invention itself or the requirements of the foreign patent law and practices—or to the normal hazards of litigation we encounter anywhere.

One example of the hazards of litigation I shall never forget was a situation in which the patent applications of two inventors, a Mr. A and a Mr. B were involved. In the U.S.A. the Patent Office and courts held that A was the first inventor and entitled to the U. S. patent; in Canada the Exchequer Court, on the same set of facts, held that B was entitled to the Canadian patent—that A had never made the invention; in Germany the Federal Court ordered B to assign his German patent application to A, holding that B had not made the invention but had derived it from A.

Patenting and exploiting inventions in the U.S.A. require skill and knowledge; the U. S. attorney must have a clear conception of what the invention is and a thorough knowledge of U.S. Patent Office practice and U. S. patent and antitrust law. Similarly, an attorney in the U.S.A. dealing with foreign patent applications and patents must know the foreign ground rules—and they vary enormously from country to country.

For example:

a. In many countries, registration countries, the patent application is granted without examination on the merits; in others the patent application is subject to examinations which differ from country to country and often differ in kind from, and in some cases are more severe than, a U.S. Patent Office examination.

b. In most examining foreign countries there are opposition proceedings, interparty proceedings requiring the highest skill.

c. More and more countries are going to a deferred examination system with publication of the patent application 18 months after its priority date.

d. What is considered prior art differs from country to country.

e. Many things patentable in the U.S.A. cannot be patented in certain foreign countries.

f. In countries that do not allow product claims a process for making a new product may be patentable, even though analogous to a prior art process.

g. Patent maintenance fees must be paid in most foreign countries and there are working requirements.

h. The scope of a foreign patent is not determined by U. S. rules. It varies from the United Kingdom where only what is specifically claimed is covered—there is no doctrine of equivalents—to Germany with a doctrine of equivalents broader than in the U.S., to Belgium and Italy where the claims are of little significance.

i. In most foreign countries process claims may be used to prevent the importation, use and sale of at least the direct product of the patented process, but the burden of proof varies from country to country and from product to product.

j. Contributory infringement, as such, is unknown in some countries but in others, e.g., Germany, mere sale of a staple article knowing it is to be used in infringement may make the seller liable.

I should now like to discuss briefly four important phases of patenting and exploiting inventions abroad: (1) deciding what patent applications to file and where to file them; (2) preparing, filing and prosecuting the foreign patent application; (3) patent enforcement; and, (4) exploiting patents and technical information abroad.

The most important, but possibly the most neglected phase, is the initial screening operation—determining which inventions should be protected by patents abroad and where. Failure to file a foreign patent application that should have been filed can lead to substantial loss of market position and earnings, but indiscriminate filing can be just as wasteful.

Out-of-pocket patent application translation, filing and prosecution costs and patent maintenance fees can amount to thousands of dollars per case in many countries. Consequently, every effort should be made to insure filing of foreign patent applications only where there is a reasonable prospect of a substantial monetary return, that the foreign patent, when obtained, will serve a useful purpose, e.g., protect operations of a foreign subsidiary, prevent unauthorized manufacture or sale, afford a trading position for obtaining freedom by cross-licensing interfering patents or provide an opportunity to obtain royalty income.

Since detailed legal, business and technical questions all are involved in this screening, the decisions should be made in committee by a knowledgeable group consisting, at the very least, of a representative

of research who knows how the invention fits into the whole research program and how it differs from the prior art, a representative of manufacturing and sales who knows what the opportunities are for commercializing the invention in the U.S.A. and each foreign country, a patent attorney having detailed knowledge of patent practice and law in each foreign country under consideration, and the patent attorney who filed the corresponding U.S. patent application. U.S. patent applications should be considered for foreign filing not later than from six to eight months after filing in the U.S., but this need not require the screening group to meet more than once every two months and then for only about an hour or so at a time.

In reaching its decisions the committee will have to answer many questions: e.g.,

(1) What is wanted—freedom to operate or the right to prevent others? If all that is desired is freedom to sell, that may be had at far less cost by publishing rather than patenting.

(2) Is patent protection needed in many countries? If the invention can be practiced in only the highly industrialized countries it may suffice to file patent applications in only those countries.

(3) Was the invention published or in public use before the filing date of the U. S. application? If it was, then valid patent protection cannot be obtained in absolute novelty countries, such as Italy and France.

(4) Is the invention patentable? Medicinal drugs and processes for making them are not patentable in Italy but intrauterine devices are. On the other hand, intrauterine devices are not patentable in Germany and Japan but processes for making medicinal drugs are.

(5) Will the patent be enforceable? If the invention can be practiced by any one having a large kettle in his backyard it may be wise not to file anywhere because you couldn't police the patent. But a foreign customer-use patent, i.e., a patent covering the use of a staple article sold by the patent owner, may have considerable value. In the U.K., for example, as distinguished from the U.S.A., a patent owner may give his customers a license under the customer-use patent to use, royalty-free, products purchased from the patent owner and at the same time require payment of a reasonable royalty for use of competitive products. In one case the House of Lords held that a royalty of over 30 percent was reasonable.

6) Has the invention been defined precisely or is further experimental work needed? Will the original U.S. application be refiled? Is

more time needed to determine whether or not the invention will be of commercial value?

If the answer to any of these questions is "yes," then the decision to file should be postponed to as close to the end of the convention year as possible, and in some cases it may be necessary to take chances and file non-convention, if at all. I might say in this connection that the proposed Patent Cooperation Treaty would be of great help, since, if it were in effect, the applicant would not have to have all of his foreign applications translated and filed in each foreign patent office before the end of the priority year; he could postpone preparation of his application for foreign filing until the last moment, file it in English in the U.S. Patent Office on the last day of the convention year and then have another seven or eight months before he had to make his final election.

The next most important step is the revision of the U.S. application for foreign filing. This requires skill, a clear conception of what the invention is and a thorough understanding of patent office practice and patent law in the country in which the filing is done, and may require the preparation of different revisions for different countries. For example, the form required for the Federal Republic of Germany differs substantially from that for the United Kingdom, and both differ from that of a U. S. application. In addition, when the U.S. application is directed to a new chemical compound it must be rewritten for filing in countries such as The Netherlands that do not permit chemical compound claims. The application must be revised completely and directed to the process of making the new product. Although chemical product claims are now permitted in Germany under the new law it is advisable to provide a basis in the German application for broad process claims since the German examiners seem loath to allow product claims. All of this requires the services in the U.S.A. of a patent attorney having detailed knowledge of foreign patent practice and law (a U.S. foreign patent specialist) but it is well worth it. It can often mean the difference between success and failure, and in any event will result in substantial saving of time, effort and expense.

U.S. Patent Office or Department of State licenses may be needed to permit foreign filing but ordinarily these present no problem. The actual filing in each foreign patent office is done by a resident patent agent admitted to practice before that office. There are many competent patent agents, at least in the highly industrialized countries. Ordinarily they are engaged to translate and file the applications and

handle the details of prosecution before the foreign patent office. However, they can only advise; they cannot decide but must rely on instructions from the U. S. foreign patent specialist who, in order to give competent instructions and guide strategy, must understand the invention, its relation to the prior art and the purpose for which the foreign patent is sought, must have direct access to the inventor and must have a thorough knowledge of foreign patent law and practice.

Prosecution is usually conducted by correspondence but from time to time there should be personal meetings between the U. S. foreign patent specialist and the foreign patent agent; in difficult and complicated cases the U. S. foreign patent specialist may have to interview the foreign examiner, sometimes accompanied by the inventor. Such meetings can be quite effective.

My next topic is patent enforcement. This involves the obtaining of sound infringement and validity opinions in addition to the bringing and defending of lawsuits. Your U.S. foreign patent specialist should be able to give sound opinions with respect to the vast majority of your infringement and validity questions and, when in doubt, can consult local counsel in the country in question—ordinarily a lawyer. Legal questions in the patent field in most foreign countries are best answered by a lawyer in the particular country experienced in patent matters—sometimes in consultation with a patent agent. In most foreign countries patent agents are not lawyers.

Foreign litigation is a field all to itself and perhaps three comments will suffice:

(1) U. S. ground rules do not apply;

(2) A patent owner alleging infringement may or may not be subjecting himself to liability for substantial damages, depending on the country;

(3) Patent litigation costs less abroad than it does in the U.S.A.

Earlier I mentioned some of the ways in which foreign patents may be exploited. The one of perhaps greatest interest to the lawyer is licensing. Most of the considerations one takes into account in negotiating and drafting a U.S. license agreement also apply to a foreign agreement, but there are significant differences.

For example:

(1) Clear and precise language is desirable in any agreement; it is essential in a foreign agreement, especially one that is to be translated into a foreign language.

(2) Export licenses may be needed if technical information is involved.

(3) A tax clause will be needed, and ordinarily a currency conversion clause.

(4) The agreement should insure that no rights pass to the foreign licensee until it has obtained all foreign governmental approvals needed to permit the licensee to enter into the agreement and make payments under the agreement in U.S.A. dollars.

(5) The agreement should be drafted so as not to afford a basis for any argument that the U. S. company is doing business in the foreign country, which could subject the U. S. company to a substantial tax liability. The place of execution of the agreement and the place specified for delivery of technical information may be important in this connection.

(6) Not only must U.S. antitrust law be taken into account, including the May 19, 1969 *Zenith Radio* v. *Hazeltine Research* Supreme Court opinion, but also foreign antitrust law; antitrust rules in the EEC, for example, differ from those in the U.S.A. but are no less complicated.

(7) Allowance must be made for peculiarities of individual country laws. In the Federal Republic of Germany, for example, as distinguished from the U.S.A., one acquiring confidential technical information may not be required to pay a running royalty or fee for its use after the information becomes known to the public. (Applause)

MODERATOR NEUHAUSER: Thank you, Mr. Ball, for giving a thorough and comprehensive treatment of the subject and doing it within your time limit.

One announcement here. There are some papers in front of you on which you can write questions. In the next 10 minutes, or so, will you write your questions, and pass them to the side. I will ask anybody who will volunteer from the last row back there, about 10 minutes from now, one on one side and one on the other, to pick them up and bring them up to the front. I am sorry—Dr. Harris tells me there are two girls already assigned to the last job.

Our next speaker is John Green, a personal friend of mine of many years' standing.

He is a graduate of the Naval Academy and Georgetown Law School, has a career which covers being a patent examiner, being with the Office of Scientific Research and Development, and those of you who remember that will be in the same category with John and me.

He is now the guiding light of John C. Green and Associates,

advising an international organization, scientific societies and industry. I understand he has medals or citations which he received from the U. S., British and Swedish governments.

I remember John as the husband of one of the more photogenic judges to grace the local court scene. Mr. John Green. (Applause)

**JOHN C. GREEN**

You did say we were friends, didn't you, Frank? (Laughter)

Mr. Ball has described a system for obtaining industrial property protection in other countries which has evolved out of the needs and experience of one of the best-known and respected firms in the world. The Du Pont Company has engaged in the transfer of its technology to foreign firms for many years and has the knowledge, financial resources and international respect which permits it to operate abroad without too much difficulty. You will recall that Mr. Ball felt that his firm was at no particular disadvantage in obtaining needed protection and coming to suitable commercial arrangements in the range of countries capable of absorbing and applying the technical advance originating in his firm. I think it is fair to say that many firms, with international interests and experience, would echo Mr. Ball's views. Another way of looking at the successes and relatively minor problems of such companies when engaged in technological transfer is to say that usually they do not, and need not, look outside the firm's own resources for help in moving toward the company's international objectives.

Today many of the international transfers of technology between firms are carried out by major U. S. companies and their foreign counterparts. Nevertheless there are numbers of medium-sized and small firms who are involved, or who wish to become involved in this type of business. For most of them the numbers of inventions and related technology that they own, and the number of countries in which they seek to market this knowledge, are relatively small. Their operations do not approach the "critical size" necessary to mount an operation on the Du Pont pattern. Most often such firms look to the relative handful of patent firms specializing in the international field for guidance and service. While there are disadvantages, especially in

communications, which Mr. Ball has pointed out, in the main, the relationship is a satisfactory one. As more and more firms of modest size and international ambitions protect and market their innovations abroad, the international patent firms should continue to prosper.

At the same time, these specialists must realize that the interposition of their staff, and their selected agents abroad, must slow down and limit communication between the inventors and patent experts in U. S. firms and the examiners in foreign patent offices. The result of such delays and limitations can operate to restrict the value of the patents obtained in terms of truly defining and protecting the invention and the related technology. In such cases the financial reasons for going abroad and the opportunities for payment may be curtailed. The practical remedy for all parties concerned is to be aware of this danger and do their best to encourage the flow of accurate and adequate information. In this connection, an eminent European authority commented as follows:

> The main difficulty encountered by a foreign patentee in obtaining a patent in this country seems to be the intercalculation of more than one patent agent in the procedure for obtaining a patent. As a matter of fact it is unavoidable that an inventor needs his home agent and also an agent abroad. For obtaining a Dutch patent, a Dutch agent is *ipso facto* much better qualified to deal with the Dutch patent office than an American agent. The latter is unaware of the purport of many questions put forward by a Dutch examiner, because he doesn't know his idiosyncrasies.
>
> My experience is that many times a Dutch patent agent is not in a position during a hearing to answer questions raised by the Patent Board, notwithstanding all the efforts he makes. You will understand that in such a case the Patent Board is not prepared to repeat questions asked before. The best thing to have an application handled in the best manner is that the foreign patent agent has complete confidence in his Netherlands colleague and provides him with all the information asked for, even if he should not understand what it is all for.
>
> If there is a lack of confidence between cooperating patent agents, the principal should change his foreign agent as soon as possible.

I observed earlier that many U. S. firms who sell or license their technology abroad are self-reliant. That is, they rarely need or call on the assistance of their government when they are seeking protection, or negotiating commercial arrangements. Perhaps one reason behind this self-reliance is a natural disinclination to involve the federal government in private commercial matters. Perhaps another is a feeling that, based on experience, they can expect very little tangible help. Nevertheless, there are a few situations that were uncovered in our inquiries where the appropriate government departments might

step in and be of assistance. Since representatives of the State and Commerce Departments are in the audience, I will give examples which these departments might consider.

I will describe a situation where "working requirements" in a foreign country can operate to jeopardize legitimate commercial arrangements with a firm in a neighboring nation. Let us assume that a U.S. firm took out patents in France and Italy. The U. S. company then gave a French manufacturer:

(1) An exclusive manufacturing license under its patent in France and

(2) An option to take an exclusive manufacturing license in Italy.

Now, an Italian manufacturer comes along and begins to maufacture and sell a device which infringes on one or more, of the U. S. firm's Italian patents. Let's look at the muddle created.

Obviously, the U. S. company can't approach the Italian firm with a view to granting it a license on commercial terms when the French company's option is still in effect. Also, one can expect that the French firm will oppose vigorously any efforts to diminish its option by licensing the Italian company. At the same time, let's not forget that the patents which the U. S. company took out in Italy are not being "worked." In view of this failure to comply with the working requirements under Italian law, the firm in Italy can insist on a nonexclusive manufacturing license as a matter of right. I have used the example of Italy because that was in a "case history" furnished the Institute by a U. S. firm which ran into this precise situation. However, basically the same problem may rise whenever a U. S. patentee grants an exclusive manufacturing license under its patents in a foreign country whose law calls for working in the country and a compulsory license if the patents are not worked sufficiently.

You might say that the direct solution to this problem would be for the U. S. company not to negotiate such a licensing arrangement with a foreign firm under any circumstances. That answer does not recognize the realities of commercial licensing, especially in dealing with a good licensee abroad. Further, as the Common Market encourages ready transfer of goods across European borders, this type of situation may become more usual.

There are countries, such as Germany, Greece and Switzerland, where our State Department has negotiated bilateral agreements which excuse U. S. nationals from local working requirements. Perhaps the Department of State representatives could request their colleagues on the international side of the Department of Commerce to consult with industry on the need for bilateral agreements in addition-

al countries and then to actively seek such agreements. Certainly the firm which provided us this "case history" would like to see such an agreement negotiated with the Italian government.

Now let me describe two specific situations which are unique to countries in Latin America, Argentina and Brazil, respectively.

The first relates to patents of importation which, as a general rule, may be applied for during the life of a corresponding patent in another country as long as the invention isn't in use in the country where the patent of importation is sought.

In Argentina there is a situation which can produce inequities both to the U. S. licensor and to his Argentinian licensee. Here is one example: A U. S. firm does business with a company in Argentina. Pursuant to a licensing agreement, the U. S. firm files an application for a patent of importation and authorizes the Argentinian firm to manufacture and sell the invention. The granting procedures in Argentina are drawn out and after the time of filing a second Argentinian firm decides that it will produce and sell the invention. This unauthorized practice of the invention, after a patent of importation has been sought, but before the patent office in Argentina gets around to granting the patent, will prevent the U. S. firm from obtaining an enforceable patent. Clearly this diminishes the interest of U. S. firms in engaging in commercial licensing ventures in Argentina.

Certainly the U. S. firm and its selected licensee are operating within principles of international trade acceptable to both countries—i.e., to encourage local industrialization with foreign assistance. However, the operation of the Argentinian law acts to deprive the U. S. firm of an essential ingredient to his participation—a fair return on his investment. And equally, the licensee in Argentina, who was selected by the U. S. firm as capable, loses a great incentive to taking the risk of bringing the invention to the market—i.e., the status of sole local manufacturer. Perhaps our friends in State can put this on the agenda when the next trade discussions with Argentina take place. One would think that the government of that country could agree that third party acts commenced after filing should not operate to invalidate the earlier applied for patent.

The Brazilian situation revolves around licensing agreements between Brazilian and other nationals. In common with many other countries, Brazil requests that these be reviewed and validated by some national authority. In the case of Brazil, it is the Brazilian Central Bank. No fault is found with the general proposition that a country concerned with the stress that an outflow of royalties might place on its financial situation should have some systematic review of

international transactions. However, Brazil has an unusual, special provision which discourages U. S. firms from licensing in Brazil. The Brazilian Central Bank normally will not approve a licensing agreement exceeding five years and involving payment of royalties unless:
(1) The licensed product is covered by issued Brazilian patents; and,
(2) The corresponding U. S. patents are still in full force and effect.

On first reading this sounds reasonable, but when one learns that grant of a patent in Brazil often takes anywhere from five to ten years, one can see how effectively this stymies many, if not most, commercial licensing agreements.

It would seem reasonable to modify the requirement of the Brazilian Central Bank to a showing of proof that the licensed product is covered by a non-expired U. S. patent, plus a duly filed, but still pending, Brazilian application. Again, our Department of State might raise this modification through the U. S. Embassy in Brazil.

There are some measures at home also that our government could take to facilitate protection and licensing abroad. These might be thought of as assisting the U.S. firm in getting its application promptly before the foreign patent office with adequate supporting statements. U. S. companies report that despite assertions that assistance in securing foreign patents is an objective of government policy—government agencies often seem indifferent, or actually noncooperative. No one situation seems more frustrating than another, hence the following inventory is essentially a listing of situations where a private firm must seek and obtain aid from some branch of the federal government before it can go forward on filing abroad:

(1) Securing a waiver of the government's rights where the work was done under R&D contract.

(2) Obtaining a license from the Commissioner of Patents to file abroad.

(3) Getting secrecy orders rescinded for inventions of a noncritical nature.

(4) Obtaining certified copies of an issued U. S. patent accompanied by a statement verifying that the patents in question are in full force and effect, that no disclaimers have been entered and that no claims have been held invalid. (Such copies are required sometimes by foreign governmental agencies—such as the Central Bank of Brazil when reviewing a proposed agreement for payment of royalties.)

What would seem needed is an "expediter," probably in the Department of Commerce, to whom industry might turn when facing difficulties, to get the red tape unraveled and the necessary papers prepared.

A special situation called to our attention by one important U. S. firm lies in the field of international agreements for the exchange of information and patents from government-to-government in the atomic energy field. While the arrangements are on a government-to-government basis, they provide that licenses under the information exchange will be available to nationals of each of the countries involved on nondiscriminatory terms. The advantage of these agreements to U. S. companies is found when they sell atomic energy equipment abroad. In such cases they need not worry about the possibility that a government atomic energy agency in the foreign country might have local patents covering elements of their equipment. The disadvantage is perhaps less tangible, though real. To quote the firm reporting this problem,

> . . . since foreign governments and companies have generally been well behind the United States relative to technology in this area, especially in the pressurized water reactor area, these government-government arrangements have been disadvantageous to U. S. manufacturers in that the U. S. government, through its contractors in this field, has given away much industry-developed industrial property. This means that only that portion of technology which U. S. industry develops independently of government contracts is useful in international industrial property transactions.

It doesn't appear that much can be done to constructively alter these agreements. However, the situation is one that merits attention as governments attack problems of worldwide concern through joint research and development. The Committee on Science Policy of the Organization for Economic Cooperation and Development has noted five such problem areas for early attention. These are: (1) computer utilization; (2) educational technology; (3) environmental technology; (4) urban development; and (5) marine resources.

Each of these five areas can, and probably will, evolve into a significant sector of international trade. Therefore, it seems prudent for government representatives in these fields to get together with appropriate industry experts to design policies which will encourage the flow of technology between nations and which will employ private transactions as the significant element of that flow. (Applause)

MODERATOR NEUHAUSER: I think you all see the advantage of the extensive background John has in the government and his knowledge of operation in the private area, combined to give you this most comprehensive talk.

I am impressed, John, with the generality and specificity of the knowledge that you have and the manner in which you can dispense it.

The final speaker on our program before the break is Dr. Robert Bangs.

Dr. Bangs has a Ph.D. from Brown University and is an Economist with the Department of Commerce. Formerly with the Treasury Department and with the Federal Reserve System, he has been an advisor to some five foreign governments.

You will note there is an asterisk after his name indicating that he is associated with the PTC, but there is a little more to that, he has been with the Institute since it first came into existence. Dr. Bangs.

## ROBERT B. BANGS

You have heard from John Green that in the Institute we are presently engaged in a factual study of business practice and policies relating to the use of industrial property in foreign countries. As a first step in this study we have sent out questionnaires to a sample of the largest U. S. companies doing business abroad and also to a group of large foreign companies doing business in the U. S. The returns are now coming in. While we do not yet have enough of them for firm conclusions, we have already accumulated some interesting insights into policies and attitudes concerning the maintenance and the exploitation of industrial property in foreign countries. My purpose is to report on what we have learned so far.

Turning to American companies first, we asked them initially to describe their most burdensome problems in securing industrial property rights abroad. Their replies covered a broad range and did not show much concentration either on certain substantive problems or on particular geographic areas. Difficulties of communication with Japan were mentioned by several respondents as was the general problem of cost; but on the whole it would appear that individual company experience varies widely and that some difficulties have been encountered in virtually all areas where industrial property rights are sought. There does appear to be a rough relationship between the cost and the difficulty of securing patent rights and the validity and value of these rights. This may reflect company interest in certain market areas, e.g.,

Germany, as much or more than procedural differences among various national patent systems.

On their experience with infringement actions abroad, most companies try to avoid these if at all possible. Special difficulties with infringement have been encountered in Italy and France; our respondents concluded that legal remedies available in these countries were seldom worth what they cost. Most companies feel that with a proper licensing policy they can avoid most infringement actions; this is what they strive to do.

As to whether foreign laws governing the protection of industrial property were adequate, replies were about equally divided between yes and no. Those who felt they were not cited arbitrary administrative rulings in Germany, procedural delays generally, and the uncertain legal status of patents in a number of countries; the other half of the respondents had experienced no unusual difficulties.

That the firms responding to our questions had had considerable experience with industrial property abroad is attested by their income from foreign licensing. Twenty percent of the firms responding had annual incomes from this source of $1 million or more, each. Another 40 percent each had incomes in the neighborhood of $300,000 to $400,000 per year. The remaining 40 percent reported lesser amounts.

In virtually all cases some package licensing was reported in which know-how and technical training were transferred along with patents and perhaps trademarks.

On the question of why foreign applications were abandoned, the replies indicate that in most cases lack of apparent commercial value is the chief reason for abandonment. In only 15 percent of the cases was discovery of prior art after filing an application cited as a reason for abandonment. Although a few replies did mention that a period longer than one year might be desirable before filing abroad, this did not appear to be a major problem to most of the responding companies. In no case did a period of more than two years appear necessary or desirable.

When asked whether industrial property considerations had played a role in company decisions whether to engage in joint ventures with foreign partners, most firms replied they had not, or at least had played only a minor role. Market and cost considerations were far more important; but in virtually all cases where joint ventures had been organized, the American company had contributed some industrial property—patents, know-how or trademarks—to the joint venture.

No special tax problems involving industrial property used abroad

were reported; but some tax discrimination against American firms was claimed in several instances.

Virtually all companies reported some difficulty in obtaining government approval of licensing agreements in countries where exchange control is in force. The case of Japan is best known and was frequently cited; but analogous difficulties in the United Kingdom, in France, and in most less developed countries were also mentioned.

Where the local government offers tax or other investment incentives to new ventures, technical difficulties in obtaining these concessions could often delay licensing or joint venture arrangements.

In brief, the pattern that emerges from this survey of problems and recent experience is one of minor irritations, procedural difficulties, and delays but not one of major impediments stemming from legislation or from consistent anti-business policy on the part of foreign governments.

Interestingly, many of the problems cited by American business operating abroad were also cited by foreign companies operating in this country. For example: many of these foreign firms consider that establishing valid U. S. patent rights is both too slow and too costly. They also prefer to avoid infringement actions when possible and to settle infringement claims informally whenever practical. These foreign firms, like their U. S. counterparts, have had more difficulties with infringers in Italy and France than in other countries. They have also experienced communication and procedural difficulties in their dealings with Japan.

In the section of our questionnaire dealing with company policies, we found less variation from one company to another than might have been expected. On the question whether industrial property considerations affected sales strategy of working through authorized dealers versus subsidiary sales units, our respondents were about evenly split. It appears that general import restrictions in various market countries are more important in determining how the market may best be served than is policy concerning the dissemination or withholding of technology. If the market country is pressing for home manufacture, licensing assembly or even more complete manufacturing operations are often necessary, even though the firm might prefer to export directly from the U. S.

As to customary reliance on patent rights as opposed to trade secrecy, there was general unanimity of opinion that patent rights would be sought in most cases where this was practical; but where unpatentable "know-how" was involved, as it is in many cases, a package licensing arrangement covering all aspects of the product or

process, including training or key workers in the licensing country, was the usual arrangement. More than 90 percent of our initial group of respondents had some package license arrangements in effect.

Incidentally, the foreign companies use the package license arrangement quite as extensively as do the American companies. In protecting and using their proprietary technology, there is more similarity than difference in the tactics of large multinational companies, regardless of the country in which they are headquartered.

On the question of how decisions are made as to various countries in which patent rights for an invention should be sought or trademark registrations filed, our returns indicate this is clearly a cost-benefit calculation; both technological and sales management normally participate in the decisions.

As a rule the house mark will be most extensively registered whereas patent applications will be filed only in those countries where prospective earnings suggest a clear margin over apparent costs.

In this decision-making process the role of subsidiaries is clearly a minor one. While a particular subsidiary may be called on for advice as to whether patent applications should be filed in particular countries, or may volunteer recommendations concerning these problems, the decisions of where to file are clearly headquarters decisions. Both the foreign and the American companies show this pattern of centralized decision-making where technology is concerned.

In response to the question of what additional measures the U. S. government might take to protect industrial property abroad, the majority of our respondents had few substantive suggestions to make. A few companies thought bilateral agreements with other industrial nations might be helpful, but this suggestion seems retrograde in view of our apparently diminishing reluctance to enter existing multilateral conventions already in force. Some support for bilateral agreements was also indicated in the responses from foreign companies. One constructive suggestion mentioned several times by foreign companies was for a better and prompter exchange of information among national patent offices concerning patents granted by each.

The third section of our questionnaire was designed to uncover attitudes toward existing international agreements and operating effects of proposed agreements should these come into force. A general conclusion from our results so far is that not much enthusiasm is apparent for international agreements among American companies. Foreign companies, in contrast, view these agreements rather more favorably and appear willing to move more rapidly toward proposed agreements such as the Patent Cooperation Treaty.

A majority of the American companies responding looked with some favor on the Madrid Agreement regarding international trademark registration and the Nice Agreement on international trademark classification. There was less support for the Hague Agreement on industrial designs, and even less for the Council of Europe conventions on patent application formalities and international patent classification. The foreign companies, in contrast, viewed all these international arrangements more favorably and would especially welcome greater U. S. participation in the arrangements already in force.

With regard to proposed international agreements covering industrial property, our interest was less in the attitudes of companies toward these proposals than in how their operating procedures would be affected should these agreements come into force. American companies generally did not feel that either the World Intellectual Property Organization or the Scandinavian Patent Union would affect their operations to any major extent. They were less certain about the Patent Cooperation Treaty, but tended generally to view this with some suspicion and with a wait-and-see attitude. The foreign companies, on the other hand, seemed to feel that the PCT had a potential of significant cost savings that could be of material benefit to them. Virtually all companies, American and foreign, viewed the intention under PCT to have several approved examining authorities as extremely difficult to coordinate and perhaps a bit Utopian.

As international trade grows, the traffic in industrial property across national boundaries is bound to increase at an even faster rate. Procedural problems and costs of using industrial property internationally are eventually going to force greater intercountry cooperation in this area. Whether the existing international arrangements or those proposed new ones now under consideration are the answer, or whether greater informal cooperation among national patent offices is the shape of the future, remains to be seen. It would appear that American companies are less sanguine about the potential benefits of international industrial property arrangements than are their European counterparts.

The more international licensing of industrial property grows in volume, and the more this is accompanied by direct investment in foreign subsidiaries, the more inevitable cooperative arrangements of some kind will become. Perhaps we have not yet succeeded in evolving the right forms for this international cooperation; perhaps we should stress bilateral arrangements more and treaties and multilateral conventions less. Whatever the form may be, our need to move forward in

international cooperation with all deliberate speed seems clear. (Applause)

MODERATOR NEUHAUSER: I am reminded that I mentioned Dr. Bangs as being on the staff of PTC and didn't mention there is an asterisk, also, after the names of Mr. Meyer and Mr. Green. After having alienated John Green (he mentioned I was his friend and you got the import of that, I am sure), I hope I haven't alienated Dr. Bangs and Dr. Ball by omitting that they had Ph.D.'s.

***Panel Discussion and Question Period***

MODERATOR NEUHAUSER: I want to congratulate the panel in hewing right to the time schedule. We still have time left for some questions. There were several distributed among the panelists up here.

One is for Dr. Arnold, who I understand is not here. Anyway, I would have ruled it as not germane to the subject and hence not a proper basis for cross-examination.

It was: "How, besides money, do you attract scientists to Bartlesville?" (Laughter)

With that I will turn to the panelists who have questions in hand and for no particular protocol reason I am going to start with Mr. Ball here who has a couple of questions.

MR. BALL: There are just two questions. One: "I find that there is some disinterest as to the need of a tax clause in the foreign license agreement. What type of tax clause do you recommend?"

Let me just say this: In many countries, royalty income is subject to an income tax. In the case of an American company, say, licensing a Canadian company, there is a 15 percent income tax assessed on the American company on this royalty income it earns in Canada, and that is transmitted to the Canadian government by the Canadian licensee.

It is desirable to have a clause in the agreement which takes into account that fact and for example provides that the licensee, assuming that he owes a dollar, will transmit 15 cents of that to the Canadian government on behalf of the licensor and the remaining 85 cents to

the U. S. company and he will be paid up. Otherwise, if you have no tax provision you will have to do what they call "gross-up," which means that, for every dollar of royalty owed, the Canadian licensee will be required to pay over 17 cents to the Canadian government and also transfer a dollar to the American licensor.

So all I am saying is that you should have some provision in the agreement. The exact language, the clause that I use is about that long and everyone objects to it but at least it is clear.

The other question: "Please repeat the advantage PCT would provide a U. S. applicant in connection with obtaining foreign patents."

I was referring to just one situation and we are not going to get into a long discussion about PCT at this late hour.

As you know, you file your patent application in the United States, and then if you file your foreign patent application within what we call the convention year, within a year of the filing date in the United States, that application, say in Germany, will get the benefit of your U. S. filing date. But that means that you not only have to decide within that twelve-month period that you are actually going to file in Germany, but that you are not going to have to refile in the United States, that you are not going to have to do more research to really define the parameters, that you don't have to wait a little longer to determine whether or not this invention is going to fly at all, whether it is going to make you money.

By the end of ten months you have to make up your mind, get your application in form for filing in Germany, get it over there and get it translated and filed.

In situations of that sort, I don't know how it is in many companies but I know in the company for which I used to work, it came up very frequently, there wasn't really time.

Well, under the PCT you won't have to make up your mind preliminarily until eleven and a half months after the original filing date. You would just then have to prepare an application in English, get it into the U. S. Patent Office on the last day of the convention year and you would retain your priority date. Under the PCT you would not have to make your final election then as to where that particular application was to be filed. When you filed in the United States Patent Office you would tentatively elect the foreign countries in which you were going to file. But you would still have another seven or eight months before you had to actually make your final election. That is all.

MODERATOR NEUHAUSER: Next is Mr. Schlamp.

MR. SCHLAMP: "Must a particular item be expected to produce a

minimum annual income before you embark on a licensing program?"

We ordinarily ask for annual payments which would defray annual expenses of administration and hopefully serve to motivate the licensee's cancellation if he is not going to use it.

"When do you conduct infringement studies before embarking on a licensing program—is it only when you involve technical assistance alone? Are you ever concerned about induced infringement?"

We ordinarily try to place the risk of the transaction on the licensee, making it clear to him that the technology and a license are being made available to him, and the risks of the transaction are his. Where we are concerned about induced infringement we try to obtain a save harmless clause.

"In licensing process patents, how far can one go in applying different royalties for different applications where royalty is based on unpatented material used in the process? Assume the different applications of the process have legitimate different values to the licensee."

I think Mr. McLaren answered that to some extent during the noon discussion. He talked about it being appropriate to have different rates. However, I believe, if my notes are correct, he suggested that when you do that you should be prepared to license others of the same kind on similar terms. However, the unpatented material portion does raise problems in connection with trying to base income or royalty on unpatented materials.

It can be done, I think. However, it seems fair to extrapolate from the most recent *Hazeltine* case that the courts will look unfavorably on the arrangement if you insist upon the royalty being based on the unpatented material.

So, I suggest that if you can mutually agree on such a base, fine, but also try to anticipate what are you are going to say to the next fellow who says, "I won't pay you on unpatented material."

MODERATOR NEUHAUSER: Thank you, Phil.

To save some more time I am going to ask Mr. Lightman and Mr. Johnston to come one after the other. Mr. Lightman first and then Mr. Johnston.

MR. LIGHTMAN: I was asked two questions: The first stated—"the typical licensing percentage rates were given for various industries. Are those rates for licensing on exclusive or non-exclusive basis?"

In most cases they were on an exclusive basis with respect to licenses to the company in its home country. They were nonexclusive with respect to exports in third country markets where no home company had been given an exclusive license.

The other question is: "Has the present administration any position

on U. S. export control regulations?"

I am not familiar with the details. There has been testimony by both the State and Commerce Departments before Congressional Committees. I would suggest that you write to the Office of Export Control, Department of Commerce, for further information.

MR. JOHNSTON: The question that is addressed to my attention is that I stated Company Number Two was more aggressive, yet they didn't pursue infringers and that the statement was not consistent and for me to please explain.

It is a matter of pay-off, or resource allocation. As compared to Company Number One they were aggressive, maybe not the most aggressive but it was the feeling within that company that the drain-off—cost of litigation—was too expensive when compared to the potential returns from alternative allocation of resources. Thus, I feel that they were gaining the maximum from their available resources—hence aggressive.

MODERATOR NEUHAUSER: Following the same procedure on the right, John Green and then Dennis Meyer.

MR. GREEN: I have two questions. I think the question will be longer than the answer.

"Since the Paris Conference requires adhering countries to treat patents in their territories as independent of patent in other adherent countries would not your proposed U. S.-Brazil agreement involve an admission, in principle at least, that the convention obligation is meaningless?"

I don't think so. What we are saying here is that today Brazil requires evidence that the U. S. patents are still in full force and effect and that a Brazilian patent has been granted. All I am suggesting is a relaxation.

The next one is: "What has been your experience as the length of time taken by the Central Bank of Brazil to approve a license agreement?"

I think it is fair to say that is variable depending on the subject matter of the invention. Perhaps an explanation of what the Japanese policy is will be helpful. This is an extremely current letter, May 26, from the Patent Office of the Japanese government in response to our question.

> As a principle introduction (import) of foreign technicians, including international industrial property transactions, in Japan requires governmental approval but actually they are approved almost automatically, with some exceptions where a thorough examination is required or they seem to be contrary to our defense interest

or to our industrial policy, for example, airplanes, arms, gun powder, nuclear power, space science, computers and petroleum chemistry are such exceptions.

MR. MEYER: This question was directed not at my comments on patent litigation costs but from a tax standpoint. The question is:

"Would you comment on any particular tax problems in licensing a party in a developing country which does not have a tax treaty with the U.S.?"

I do want to make a comment that appears pertinent especially in light of the various mergers, etc. One thing you will wish to determine in foreign licensing, especially in a country where the United States does not have a treaty, is what other divisions, or subsidiaries, of your company are doing in that particular country. Many developing countries have laws which provide that a foreign corporation which is not a resident of that country is not subject to tax or, if subject to tax, the rate is reduced with respect to income arising from the country. On the other hand, once the company has developed a residence in the host country, all of its income is subject to tax under the so-called force of attraction theory.

Let me give you an example of this:

Assume that X company is selling into a developing country through a division and, because it does not have a residence there, is not subject to tax on such sales income. Subsequently, another division negotiates a package license arrangement involving patents and know-how which includes, especially during the transmission period, substantial visitations by engineers, etc. of the licensor. In that situation, caution must be exercised to ascertain what the laws of the country are in terms of time periods that the engineers can visit. If they are over there a specified period of time, the company may become a resident corporation with respect to that country and its sales as well as the licensing income could be subject to tax.

MODERATOR NEUHAUSER: We have a couple of questions for Dr. Harris.

DIRECTOR HARRIS: The question: "If you wish sincerely full contributions directed to changing the present assumed 'empire' system, does it not seem irrational to address yourself to the 'selected experts' who are the architects, maintenance force and beneficiaries of that system?"

Well, in the first place, if they are the architects of the system, they would know the system best and, in the second place, if they go along with the changes we propose, perhaps the changes are really worthwhile, since, as you infer, the guardians of tradition would be most

reluctant to modify at all.

I think the attitude expressed in this question is most relevant to the general climate of protest in certain quarters today, particularly in the universities. Certain young students, and others, equate the guardians of tradition and those who carry the tools of learning with the so-called power structure and thus, ipso facto, make these people irrelevant to progress. May I call the questioner's attention to the small increments of which progress is made and that we stand on the shoulders of our predecessors, who carried the tools in their day, to add our own improvements.

The other two questions are not as relevant to the issues of the day, but I think are important with respect to the subject matter I discussed this morning.

"Does discovery tend to increase the cost of a case absolutely or rather does it simplify trial and actually tend to reduce the cost of getting at the issues?"

This is a question of interpretation of the responses to our inquiry. Discovery, from the responses of our experts, appears to increase the cost of the case absolutely. It also does appear to simplify trials and tends to reduce the cost of getting at the issues, but apparently the weight is on the other side. It seems to cost too much for the amount of simplification and the reduction of cost in getting at the issues for trial.

The other question is: "How can infringement and validity aspects be separated and separately tried?"

Frequently one is contingent on the other. This is true. This is why we said that it is up to the court, the district court, to make the decision. When there is a question of validity and it feels, on the basis of fairness and expedition, that the case should be sent right over to the validity court, it may do so. However, it may send the case over at any stage, even *after* infringement is tried in the district court, because the district court may find, in effect, that were this patent, or were this claim, valid, then it would (or would not) be infringed. So, it can determine infringement first and *then* send it over to the validity court, where the art before the district court would also be involved in the validity decision.

Thank you, Frank, for moderating this very excellent session on the private stakes in invention.

I want to thank all of the participants. Mr. Arnold had to catch a plane and wasn't able to answer his question.

To save time we will go right into the next session without a recess. Will the members of the next session please come forward.

SECOND SESSION

# II. Government-Private Issues

## Part A—Current Antitrust-Unfair Competition Developments

DIRECTOR HARRIS: Ladies and Gentlemen, we have a formidable array of antitrust talent represented at this Conference. In fact, five former Chairmen of the Antitrust Section of The American Bar Association are scheduled to address you. You heard Mr. McLaren at lunch, you will hear from Mr. Kirkpatrick and Professor Oppenheim today, and Mr. Barton tomorrow. The Moderator-Commentator of this session, Mr. Anderson, is also a member of this select group of chairmen. You will understand how highly we regard Mr. Anderson, he has just accepted our invitation to serve on the Advisory Council of The PTC Research Institute. Incidentally, the correct name of Mr. Anderson's company is "PPG" rather than that listed in the program. This gives me an opportunity to bring to your attention the acronym "PTC" that we have adopted in the name of the Institute—because of our broad interests in invention, innovation, and trade practice and for the sake of those who had to use our formidable name. It is a pleasure, indeed, to introduce the Moderator of this session, Mr. Cyrus V. Anderson. (Applause)

**CYRUS V. ANDERSON**

First let me say that just because we are starting late I want to stop any rumor that may be running through this room that tonight's dinner has been cancelled in order to permit our question and answer period to go forth as scheduled.

The general subject of our discussions this afternoon, of course, is "Current Antitrust-Unfair Competition Developments."

This is the first of the Government-Private Issues that will be taken up at this Conference. Of course the overall theme for the Conference continues to be "Technical Knowledge: Its Protection, Use and Flow."

The discussion of developments, which you are about to hear, as your program indicates, falls into three broad, but I might point out relatively unconnected, subject areas. They are "Conglomerate Merger Industrial Property Problems," first, followed by "Antitrust-Unfair Competition Interaction," and finally a discussion on "Empirical Study on Patent Licensing Limitations." In each case we have two speakers to talk about each of these broad subject areas.

As has already been indicated, each of the speakers is an expert in the antitrust field and is highly qualified and I certainly hope you will find what they have to say both stimulating and worthwhile.

If you will pardon just a quick personal reference, I would simply like to note that I have participated in many different capacities in symposia of this kind but this is the first time I have been given the title of Moderator-Commentator. I hope you are impressed by the title because I certainly am, even though I don't know precisely what it means. In any event, I hope to find out in the course of this afternoon's program.

Formatwise, each of the six speakers will give his prepared remarks (and it is my hope that they will run about 15 to 20 minutes each) and after the last speaker has concluded his remarks we will take a brief recess and continue with the questions and answers.

I do sincerely hope that all of you will stay for the questions and answers because often that turns out to be about as stimulating a part of the program as can be and particularly so when conflicting views among some of these topnotch people are developed.

Now, to go forward, the first subject, "Conglomerate Merger Industrial Property Problems," is up for grabs.

The first speaker who will address himself to some of these problems is Ephraim Jacobs of the Washington D.C. law firm of Holla-

baugh and Jacobs. He received his A.B. degree from Marshall University, his LL.B. from George Washington and he earned his LL.M. degree at Georgetown. Thereafter he served in the Antitrust Division for a period of some 14 years. His last position with the Division was that of Chief of Legislation and Clearance Section. In that important capacity he assisted in the formulation of merger policy and the selection and prosecution of merger cases. In addition he supervised the Division's legislative program, its liaison program with other government agencies, and the very important business clearance program.

Some of the merger cases in which he played a significant role include *Bethlehem-Youngstown, Brown Shoe, Continental Can-Hazel Atlas* and *El Paso-Pacific Northwest.* The decisions in those cases might have been some which were in Mr. Justice Stewart's mind when he said not too long ago that the government in recent years seems never to lose an antitrust case. Therefore, if any blame should attach here, Mr. Jacobs should take his share!

Mr. Jacobs left the Department of Justice in 1958 and has been engaged in private practice in this city ever since. Notwithstanding the heavy demands on his time, he has served most ably as Chairman for three years of the American Bar Association Antitrust Section's Clayton Act Committee, more recently he was Chairman of that Section's Program Committee and he is a former Chairman of the Antitrust Law Committee of the District of Columbia Bar.

He has appeared on a number of important Antitrust Law programs and at the present time he also serves as a member of the Bureau of National Affairs Advisory Board for their Antitrust and Trade Regulation Report.

I am sure you will all agree Mr. Jacobs is well qualified to discuss the subject of Conglomerate Merger Industrial Property Problems and it is now my pleasure to present him to you. Mr. Jacobs.

## 1. Conglomerate Merger Industrial Property Problems

EPHRAIM JACOBS

Thanks very much, Mr. Moderator-Commentator. I decided that they called you a moderator-commentator because it fits right into this conglomerate picture.

I assure you the introduction was much better than the speech is going to be.

Perhaps some of you remember the old comedy team of Willie and Eugene Howard. They used to have an act which they called "How to Learn French in 12 Easy Lessons, or 6 Hard Ones." Well, my problem today is even harder than theirs. I am supposed to give you an overview, so to speak, of some of the conglomerate merger policies and some of the considerations involved in about 20 minutes. So I won't waste any more time.

When we talk about conglomerate mergers, we, of course, have to keep in mind that we are not talking about mergers of companies who are competitors, which we call horizontal; we are not talking about mergers of companies who are in a buyer-seller, or supplier-user relationship. These we generally call verticals. But we are talking about all others.

All these others, in legal parlance, at least, seem to have fallen into three groups, which have been described as pure conglomerates, product extensions and market extensions.

Briefly, we generally refer to a pure conglomerate where there is no discernible relationship between the business of the buying and selling companies. An example of this might be when a steel company buys a chewing gum company and then buys a dairy.

Product extension is a merger that, let's say, is not quite as pure as a pure conglomerate. It is one in which the acquired company may be moving into an area that seems to be a logical extension of what it is already doing. Let's say that the products are marketed in similar fashions. The technology or know-how may be related or transferable. The advertising may be applicable to both products, they may be sold from the same shelves.

An example of this in terms of an actual case was the Procter and Gamble acquisition of Clorox.

I suppose, also, if a chewing gum company were to acquire a

life-saver company, or if a potato chip company were to acquire a pretzel company these might be considered product extension conglomerates.

Then, finally we have market extensions. An example might be where a dairy in Iowa acquired another dairy in Maryland. They are in the same business but they operate in different geographical markets.

For the purpose of our discussion today, I think this will suffice so far as definitions are concerned. I assume that Professor Adelman can probably think of many other types of conglomerates that I should mention but this is all that I will mention at the moment. These various types all have in common the fact that the companies are not competitors and they are not in a buyer-seller relationship.

Now, with the absence of the vertical relationship what seems to be the reason for the recent flurry of activity and the rather strong approach taken by government agencies with respect to conglomerates?

I would like in this connection to quote a brief excerpt from a speech that Mr. McLaren gave just last week. He said, "How are we dealing with this situation? First I want to emphasize that we are not opposed to conglomerate firms as such, new or old. We recognize there is much to be said for them. We are not even opposed to conglomerate acquisitions. In fact, as I have repeatedly said, we would welcome foothold acquisitions by the conglomerates in concentrated industries. This suggestion which would aid competition seems to have fallen on deaf ears. What we are concerned with are mergers which may threaten competition, whether or not involving conglomerates."

When Mr. McLaren referred to foothold acquisitions, I think what he was referring to is what he mentioned in a speech he made in March before the American Bar Association. There he suggested that large firms might buy small firms in concentrated industries. He said the large firm would have the resources to expand the small firm's capacity and increase its share of market. Such a merger, he said, could increase competition and he added that he considered this a *can do* suggestion. I might add that his suggestion seems to tie in with the proposal made by the report of the White House Task Force appointed by President Johnson.

This report recommended a change in the merger statute that would prevent large firms (and there is a definition of such) from acquiring leading firms in concentrated industries. This would presumably leave open the possibility that large firms would not be prevented from acquiring small firms in a concentrated industry.

In his speech Mr. McLaren pointed out that the government is

"statutorily" required to be concerned with conglomerate mergers which may threaten competition.

Let's take a brief look at the statute that he was referring to. This, of course, is Section 7 of the Clayton Act which is generally referred to as the anti-merger statute. It says specifically that no corporation engaged in commerce shall acquire in whole or in part the stock or assets of another corporation also engaged in commerce where in any line of commerce, in any section of the country, the effect may be to substantially lessen competition or to tend to create a monopoly. That is all it says.

You will see there is no specific mention of competition between the acquiring and acquired companies; there is no specific mention of elimination of competition between them; and there is no specific mention of buyer-seller relationship or supplier-user relationship. It has a generality applicable to all acquisitions, regardless of the type, if the effects may be to substantially lessen competition.

The House report that accompanied and explained this Bill, to eliminate doubt as to its applicability to conglomerates, said specifically that it was intended to apply to conglomerates if certain effects are present. So, Section 7 is an effects statute, and this is what we have to focus upon in evaluating any given merger.

Keeping this in mind, namely that the statute deals with effects, what are some of the effects which may threaten competition which the government has cited in its cases and which have been pinpointed in speeches? There are perhaps six or seven of these. Some are much more important than others.

The one effect that seems to run throughout most conglomerate cases filed to date is the elimination of potential competition between the acquiring and acquired companies. The point is made that the acquirer is a likely entrant into the field occupied by the acquired company.

This point of potential competition was mentioned prominently in the Federal Trade Commission's case involving White Consolidated Industries and Allis-Chalmers; in the Antitrust Division's case involving LTV and Jones & Laughlin; and in the Antitrust Division's Northwest-Goodrich case. Potential competition also played an important role in a proposed merger that never occurred because the Department opposed it. That was a proposed merger about a year and a half ago that would have involved Cerro, a copper company, and Bethlehem Steel. Mr. Turner, a prior head of the Antitrust Division, said that the government opposed that merger among other reasons

because they felt that steel corporations were likely entrants into the copper industry.

Well, enough about potential competition. I am sure you get that point.

The second effect that seems to be cited in many conglomerate cases is the effect centered around reciprocity. This is the idea that "I will buy from you if you will buy from me." It involves use of purchasing power leverage to induce others to purchase your products.

This effect was cited in the recent complaint against ITT and Canteen. It was also litigated and went up to the Supreme Court in the Consolidated Foods case. There it was pointed out that since Consolidated purchased processed foods, and since it had acquired a company that made dehydrated onion and garlic which was sold to food processors, it could say to its suppliers, "we will buy your products if you will buy dehydrated onion and garlic from us."

Reciprocity is mentioned also in the LTV and the Northwest-Goodrich case, and it may be the most prevalent effect cited in conglomerate cases filed to date.

There are other effects cited which get to be perhaps even more controversial than the ones I have mentioned. Mr. McLaren, for example, has pointed out that a conglomerate merger may raise the level of barriers to entry in a concentrated market, a factor involved in the Procter and Gamble-Clorox case. Or, a conglomerate merger may entrench the position of an already dominant firm in a market. Also, if an acquiring firm is much larger than the acquired firm's competitors, those competitors may temper their competitive effort, or be put in jeopardy because of the disparity in size.

On this point I would like to tell you about a case that occurred several years ago. It was the Reynolds Metals case in which Reynolds acquired a little florist foil company. Reynolds made aluminum foil but was not itself in the florist foil business. The companies in florist foil were all very, very small. The acquisition could have been attacked on a vertical basis, but it wasn't. It was attacked mainly on the basis that the sheer size of Reynolds, which was moving into an industry consisting of these very small companies, would put everyone else at a tremendous competitive disadvantage.

The Federal Trade Commission decided the case on this basis. Then it went up to the Court of Appeals and the Court of Appeals upheld the Federal Trade Commission.

I would like to read to you a paragraph from their opinion.

Please listen to this very carefully. If you don't listen to anything else I say, listen to this.

> The truer picture of anti-competitive effect emerges from even the most cursory consideration of the post-acquisition competitive postures of the eight previously independent florist foil converters vis-a-vis one another. Arrow's assimilation into Reynolds' enormous capital structure and resources gave Arrow an immediate advantage over its competitors who were contending for a share of the market for florist foil. The power of the "deep pocket" or "rich parent" for one of the florist foil suppliers in a competitive group where previously no company was very large and all were relatively small opened the possibility and power to sell at prices approximating cost or below and thus to undercut and ravage the less affluent competition. The Commission is not required to establish that the Reynolds' acquisition of Arrow did in fact have anti-competitive consequences. It is sufficient if the Commission shows the acquisition had the capacity or potentiality to lessen competition. That such a potential emerged from the combination of Reynolds and Arrow was enough to bring it within Section 7.

I think that was a pretty far-out position for a court to have taken seven years ago. The reason I think it is particularly interesting today is that the opinion was written by Judge Warren Burger of the United States Court of Appeals for the District of Columbia.

Well, with time running out I will skip some of the other things I wanted to say and I will go directly to a few comments with respect to patents, trademarks, know-how and copyrights, otherwise The PTC Research Institute might take back their lunch.

I point out here that although Section 7 is generally referred to as the anti-merger statute, it doesn't really say anything specifically about mergers. It speaks in terms of acquisitions of stock or assets. Thus, a basic question might be to what extent acquiring a patent license is the acquisition of an asset that might come under the statute? There are several cases that have come up involving this, or a similar problem, and they go in the direction of saying that the acquisition of a license can be an acquisition under the statute, and that patents, trademarks, know-how, etc., are assets.

In one case, for example, a company acquired for 14 years an exclusive license to distribute for TV exhibition approximately 600 films originally produced for theatrical exhibition. The court said this constituted the acquisition of an asset covered by Section 7 of the Clayton Act.

In another case a company acquired trademarks, copyrights, patents, as well as inventory relating to a detergent. The court said it appeared clear that a trademark may be very valuable as an asset of a company, patents may be valuable assets of a company, and that the contract involved the acquisition of assets as contemplated by Section 7 of the Clayton Act.

Just this past November the Department of Justice filed a case still pending, against Scott Paper Company and Chemotronics, Inc. which involved the acquisition by Scott of an exclusive license under certain Chemotronic patents and applications. The Department is claiming that the acquisition of that patent license was an acquisition covered by Section 7 of the Clayton Act.

Another case you might find interesting is *United States* v. *Allied Chemical Corporation* and *General Foam Corporation.* There the companies had negotiated a merger which the Department of Justice attacked and prevented by the entry of a consent judgment. In the consent judgment there is a provision that prevents the corporations from utilizing directly or indirectly any of the tangible or intangible assets they had acquired during the course of the negotiations, including, but not limited to know-how, secret processes, methods of operation, customer lists, other trade secrets or proprietary data.

Considering the inclination of courts, and the government, to the view that licenses are acquisitions and that patents, trademarks, and know-how are assets, isn't it possible that the "effects" standards of Section 7 of the Clayton Act will become increasingly important in the patent licensing field?

There might be, by analogy to mergers, horizontal licenses, vertical licenses and conglomerate licenses, all tested by the vague standards developed under Section 7 of the Clayton Act, which essentially was a statute passed with mergers in mind, and under which the test is whether the acquisition in any line of commerce in any section of the country may have the effect of substantially lessening competition. This is generally considered to be a test much easier for the government to meet than the Sherman Act test.

Now, with this pleasant thought I will take my leave and thank you very much. (Applause)

MODERATOR ANDERSON: I must confess you certainly have scared us all, Eph, and the only comfort I derive from your remarks is that lawyers apparently still will be needed.

Our next speaker is not a lawyer but rather he is a most highly skilled economist. He is a professor of economics at M.I.T.

I have been privileged on past occasions to introduce him and to hear his really superb presentations. They are always of the very highest quality.

Your next speaker made his antitrust debut in the fall of 1948. You

know, that doesn't sound so bad but it is 21 years ago and that is frightening to those of us who were able to read at that time.

In the fall of 1948 he wrote the lead article in *The Harvard Law Review* entitled: "Effective Competition and the Antitrust Laws."

Since then he has written numerous other articles which have been "must" reading both for antitrust scholars and practitioners.

He also has served as a consultant for many government departments, e.g., the Departments of State, Treasury, Defense, and Commerce.

He was formerly United States Editor of the Journal of *Industrial Economics* and a member of the Attorney General's Antitrust Committee. He has also taught the antitrust seminar at the Harvard Law School back in the early '50s and more recently a year or two ago.

It will be interesting to see if he will assuage any of the distress that Mr. Jacobs has cast our way. I rather doubt that he will but the best way to find out is to hear what he has to say.

So without further ado let me present to you Professor M. A. Adelman of M.I.T.

## M. A. ADELMAN

I should thank Cy Anderson for the introduction but I am not sure about that either because no one is all that good. The contrast between the introduction and the talk may be painful.

Patents, trademarks, industrial property generally, on the one side, and the antitrust laws on the other, have always formed, I suppose, somewhat restless bedfellows, which doesn't prevent the arrangement from being a fruitful one. Nevertheless, there are always adjustment problems arising because, after all, a patent is a lawful monopoly and the problem is always where do you draw the line. Well, that has always been a problem of market size, market understanding, and the question as I see it is whether this traditional concern is yielding to a rather different one, which has really no relationship to monopoly or competition as an economist would understand them, but is rather concerned with sheer size.

On the campus nowadays, and the Moderator was nice enough not to mention the current travail, we hear a lot more four-letter words

than I like. But, you can go too far in the other direction as well, and I think we would be better off to recognize that part of our difficulty in discussing conglomerate mergers is really just a kind of prudishness in the face of a four-letter word, namely size.

It would help if we recognize that size is really what these trends in the law and the decisions are all about and did not try to dress it up with a lot of words. The interest in conglomerate companies is by no means new. During the late 1940's when hearings were being held on the proposed amendment to the Clayton Act, which became the Anti-merger Act of 1950, there was much denunciation, often violent, against conglomerates which then seemed to mean companies that were in any sense diversified. The denunciations were short on specifications.

If you look at such contributions as were made by academicians, I made a study myself of a grocery chain which seemed like a pretty good model of a highly diversified company and therefore a good specimen for testing what really happens.

The popular wisdom is that such companies are always on the prowl looking for small businesses that they can ruin by predatory price cutting or litigation, or what have you.

I won't bother to explain why in theory you should find few examples, I can only report that in fact you can't find any such examples. It took much time and effort to study the evidence.

In the case that Mr. Jacobs mentioned, the key words there are "sheer size" and "cursory." That is suiting the action to the word. And so long as you pay the facts "cursory" attention, the legend will live on that big firms will practice predatory price cutting if you give them half a chance.

A much more mild and respectable version of the popular wisdom was presented in an essay that is still worth reading, by Corwin Edwards entitled, "Conglomerate Bigness as a Source of Power."

Again, if time runs short, read the comment that followed immediately afterwards by George W. Stocking, who would have been delighted to join in a doctrine that would seem to hurt big business but who was unable to discern anything in this but a new word or name which would mix up two distinct ideas: economies of scale on the one side and monopoly on the other, which he thought and I think ought to be kept distinct.

That gives you some idea, perhaps, of the background and the hearings, and no doubt some people in Congress did want to do something about conglomerates and some of them may even have had some faint idea of what a conglomerate was. But the law they passed took no

special recognition of conglomerates at all. It forbade mergers when they would have an unfavorable effect on competition in some line of commerce in some part of the country. That is what an economist would call a market. For ten years nothing that even looked like a conglomerate was touched by the anti-merger act.

Starting in early 1960 the boundaries began to be loosely delineated. Some fringe elements were elucidated. Names proliferated faster than our understanding.

In fact, all we need is one: Diversification. Product extension and market extension are examples, and the ultimate extreme in diversification is: no relationship at all between two or more parts of a firm.

Diversification is not a yes or no characteristic, it is a matter of degree.

We have also heard much about potential competition. It is not a new idea. But neither does it help very much in determining the likely effects in terms of price or other kinds of competitive effects.

Now, potential competition can't be taken literally. It is, I think, going to be hard to take some of it even seriously.

The allegation, for example, that LTV might have considered entry into the steel industry, of all industries, I think should draw a smile and not much more than that. But the standard, I think, is really that of a musical comedy I saw years ago, the name of which escapes me. The song was: "Standing on the Corner Watching All the Girls Go By" and the line was "They can't put you in jail for what you are thinking." Actually, in Japan before World War II they did have an act against dangerous thoughts. And, I think that: "Do you now or have you ever thought about going into the line of business?" is going to come to that.

Now, two non-cases were about as significant as any decided cases in showing the direction of the law. This was almost immediately after Donald F. Turner became Assistant Attorney General in 1965. He took the decision not to prosecute two big oil company mergers, Pure with Union and Atlantic with Richfield. The answers were not publicly stated but they seemed obvious. Neither of the merging companies in either of the cases competed with the other in wholesale and retail sales. These markets were essentially local and regional. At the producing or refining level the market was national or subnational. Where both companies did compete in these national markets, they were, apart or together, a negligibly small part of it.

Therefore in no market that an economist could recognize or analyze would there be any effect on supply or on price. The objection either had to be size, as such, or no objection at all.

Now, to anyone with a feeling about the way the law develops, and even nonlawyers can cultivate this, this decision on the part of the Assistant Attorney General was an interesting one and perhaps an agonizing one.

The decision not to prosecute seemed to me strictly in conformity with the antitrust laws and with the anti-merger act in particular, as interpreted up to that point. Yet, suppose another incumbent in that office had decided to prosecute the cases. Could the Supreme Court possibly have restrained itself from hitting two big mergers over the head?

At this point, law becomes a fascinating mixture, part science, part art, and part moral conscience. In the 1960's, we were getting decisions on mergers where there was an economic market which was at least lightly touched by the acquiring and acquired firms. You could call it a matter of judgment. The *Clorox* case involved elements of market competition; Mr. Jacobs has summarized it so well that I need not repeat it. Conglomerate mergers were being left alone, as they must be by a law that is concerned with competition.

Whether this salutary neglect of conglomerates would have continued, I don't know. Over the past few years, however, the scene has been dominated by the flamboyant rise of a number of companies who have pushed diversification about as far as it can go, buying various companies with no visible market interrelationship.

From the point of view of the stockholder there is one prediction which can safely be made. Some of these conglomerates will turn out unusually well, some unusually badly. The rest will find that good breaks and bad breaks tend to offset each other. Basically it is a question of how well one can size up a going concern and see whether its assets are, or are not, being well used.

If I could tell beforehand which conglomerates were going to fall in which category I would be smarter and therefore richer than I am.

The problem has been put on the current agenda, and I am content to state the problem and leave it with you: How can you have attacks on a conglomerate acquisition in the name of the law which covers only economic markets?

Now, perhaps I should say, in a conglomerate acquisition there is no market that I can see. Which reminds me of the advice that Shakespeare gave to people in a spot like this: "Get thee glass eyes/And like a scurvy politician, seem/To see the things thou dost not."

You get some perspective on this by looking at the two reports made by the Task Forces appointed by President Johnson and President

Nixon which have recently leaked, or dribbled into the public domain.

The Nixon-appointed committee says, if the newspapers are to be believed, and I think they are, that the law does not touch conglomerates and what is more it shouldn't. So there is a proposition of fact and a recommendation.

The Johnson-appointed committee agrees that the law does not touch conglomerates but a majority of its members think that some change in the law should be made at least to prevent the largest company in any market from being acquired by an outsider.

Now, the grounds on which they urge this are not stated. In any case, either Congress will be moved to change the law or the courts will take it on themselves to do what both Committees agree it can't do.

So with this ever more cheerful prospect that Eph made when I was introduced to you, I am content also to withdraw. (Applause)

## 2. Antitrust-Unfair Competition Interaction

MODERATOR ANDERSON: We turn now to our next heading, "Antitrust-Unfair Competition Interaction." This is a subject of discussion by our next two speakers and I know it will be handled competently because it will be discussed first by a Philadelphia lawyer and then by a professor of law at the University of Iowa College of Law. That's a pretty tough combination to beat. First, let me tell you something about our lead-off speaker on this subject, the Philadelphia lawyer.

He received his undergraduate education at Princeton and his law degree from the University of Pennsylvania Law School. After serving in the Army during World War II he became associated with Morgan, Lewis and Bockius, a fine Philadelphia law firm of which he is now a member.

Like Mr. Jacobs and others on this program, your next speaker has also been extremely active in the American Bar Association Section of Antitrust Law and was formerly Chairman of that Section's Sherman Act Committee.

More important, of course, is the fact that he is the present Chairman of the ABA Antitrust Section. Quite recently your next

speaker was appointed Chairman of the American Bar Association Commission to study the Federal Trade Commission, which Commission was created pursuant to President Nixon's recent request.

He is an old friend of mine and it is a great pleasure to present to you now Miles W. Kirkpatrick, of the Philadelphia Bar. Miles. (Applause)

## MILES W. KIRKPATRICK

Thank you, very much, Mr. Moderator-Commentator.

When I started putting together these remarks on the subject of the interaction of antitrust and the licensing of technical knowledge, I was struck by two seeming oddities. First there is a real scarcity of any judicial authority bearing on the many vexing problems in this area. Second, the bulk of such authority that does exist relates to the international licensing of know-how.

Maybe there are good reasons for both of those facts. Perhaps American companies are frequently apprehensive of the quality and extent of foreign patent protection. But they are surprising in view of the very considerable amount of know-how licensing by industry both within and without the United States. The licensing of know-how is certainly an everyday technique in industry today; nonetheless the decisional law offers very little solid help in the formulation of know-how licensing practices and policies.

At the outset, it seems appropriate to fix the metes and bounds of that which we will be concerned with. My concern this afternoon is with the know-how of a technological nature. Such things as customer lists may constitute valuable trade secrets, but they will normally not be the subject of know-how licensing or, if they are, will probably be a minor part of a larger package of technological information.

For the purpose of my discussion this afternoon, I suggest the rough and ready definition that know-how consists of technological information concerning manufacturing processes not protected by patent, not generally known or accessible, and of competitive advantage to its owner. Obviously, there will be gradations in the competitive value of information of that kind. Some know-how may be only in the nature of generalized manufacturing skills, not highly secret or confidential and

possessed by some or many competitors, but of substantial value to anyone wishing to enter the particular industry. In other instances the know-how may be highly secret, of great value to competitors and newcomers alike, and undiscoverable without either a lucky breakthrough or the expenditure of many years and millions of dollars. The congruity of restrictions in any licensing agreement with antitrust principles will, as will be discussed later, be dependent in large degree upon the character of the know-how involved.

I start with the proposition that there is no significant antitrust problem—although a great many tricky and important considerations of other kinds—in the licensing of know-how as such. The possessor of trade secrets, absent of monopoly position, is free to license or not to license the information as he sees fit. It is only when the licensor—or the licensee—wishes to place some restrictions on the use of the information that antitrust questions come to the surface. Such limitations typically include geographical limitations, limitations upon the field of use, limitations on quantity, price limitations, or a combination of them. There is almost no judicial authority relating to the last three named limitations and any conclusions in that regard must be based upon analogy either to such authority as exists in respect of geographical limitations or to patent law.

I believe, however, that in formulating any views as to the legality under the antitrust laws of various restrictions in know-how licensing agreements, we should not too easily accept the surface analogies available in the patent law. At least one writer has called attention to the difficulties of applying patent doctrine to the know-how situation. The patent law forms an imperfect analogy for our purposes for several reasons. While patent doctrine bars restrictions that go beyond the geographic locus of patent protection, know-how has no ascertainable geographic scope. Similarly, a patent has a definite duration, but know-how does not; generally speaking, for our purposes, trade secrets expire as such when they become public but when (and where) is that? There is also the question of defining the subject matter of know-how. Patent doctrine bars restrictions going beyond the patent which has a definable scope. But manufacturing how-how, in the language of Professor Stedman "is like a cloud in the sky that forms, dissolves, forms again, shapes and reshapes as the atmospheric conditions change."[1]

Actually, it has been pointed out that the patent system and the law of trade secrets are in conflict in respect of major underlying purposes.

[1] Stedman, "Legal Problems in the International and Domestic Licensing of Know-How," 29 A.B.A. Antitrust Section 247, 251 (1965).

One fundamental purpose of the patent system is to encourage the disclosure of technological advances and discourage secrecy. To the extent that secrecy is relied upon to protect patentable inventions, it would seem that the patent system fails and the interchange of scientific information is impeded. Indeed, analogizing from the 1964 *Sears*[2] and *Compco*[3] decisions of the U. S. Supreme Court, one writer has suggested that the law of trade secrets should not be applied to protect and thus maintain in secret indefinitely any patentable invention in commercial use if it is not the subject of a pending patent application. The view is advanced that the protection offered under state law to trade secrets operates at cross-purposes with the federal patent policy, and that the federal patent law might well be held to have pre-empted the field.

In any event, the major part of the usual know-how problem relates to restrictions placed on the product, rather than, or in addition to, restrictions of location that may be placed upon the use of the licensed process. At best, the patent law furnishes an infirm basis for restrictions upon the sale or use of a product through the leverage of a process patent license.

Only two reasonably recent decisions can be cited which stand for the proposition that restrictive convenants as to territory do not necessarily collide with the antitrust laws. In *Foundry Services, Inc.* v. *Beneflux Corp.*[4] the plaintiff was seeking to enjoin the defendant from competing with it in the United States in the sale of fluxes and other products used in the manufacture of metal castings. The defendant was a subsidiary of an English corporation which had bound itself in 1931, the date of the decision being 1953, not to sell the products in question directly or indirectly in any part of the United States and had licensed plaintiff to sell the same within that market. The fluxes in question were manufactured with secret "processes, recipes and formulae" and the fluxes being "no doubt good and valuable" were not even suggested to be "the only ones available or in use in the manufacture of metal castings."[5]

The plaintiff and the licensing corporation were not competitors and the potentiality of competition between them was not mentioned in the court's opinion. Relying on the doctrine of ancillarity, the court observed that there was here "an isolated agreement of mutual

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[2] Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225 (1964).

[3] Compco Corp. v. Day-Brite Lighting, Inc., 376 U.S. 234 (1964).

[4] 110 F. Supp. 857 (S.D.N.Y.), *rev'd* on other grounds, 206 F. 2d 214 (2d Cir. 1953).

[5] 110 F. Supp. at 860.

restraint as to territory only, between a single owner-licensor of a secret process and a single licensee not theretofore in competition with each other."[6] The court obviously had no real doubt as to the substantial character of the secret processes involved and entered an order to prevent the sale within the United States by the defendant of the fluxes produced by the secret process.

Although the *Beneflux* case has been cited in numerous articles as standing for the proposition that a territorial restraint in know-how license is not always improper under the antitrust laws, it is startling to note that since the date of the decision, 1953, it is yet to be cited or referred to in any court decision. Yet it is probably the solidest recent decisional authority that exists in upholding a geographical restriction.

Another decision, *United States* v. *E. I. duPont de Nemours & Co.*,[7] constitutes, along with the *Beneflux* case, one of the two recent decisional foundations upon which hope rests for the ultimate survival of territorial limitations. In that case, the district court sustained an exclusive license granted by a French company to a joint venture company owned by Du Pont and the French company upon the covenant by the joint venture company to limit its sale of cellophane to North and Central America.

Rejecting the government's contention that a territorially limited license under a secret process is per se illegal, the court said the following:

> Defendant's evidence has shown the French process was the only existing commercial process for the manufacture of cellophane, and it was a proven process that worked. It was not known in the trade, nor disclosed in issued patents. It was guarded against public disclosure. Its value is clear not only from the price paid for it at the time but from the expert testimony received as to the amount of effort and money which would have been required to enter the business without it. It was made available in an explicit way, both by writing and plant disclosure. All steps of the process were covered, all aspects of machinery design revealed. Elaborate chemical controls requiring years to develop were explained. The process covered the entire manufacturing process from viscose through casting and drying machines to the plain cellophane itself."[8]

In upholding the territorial restraints, the court stated, "Among the ancillary restraints which are considered reasonable, both under common law and the Sherman Act, are those which limit territory in

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[6] *Id.*

[7] 118 F. Supp. 41 (D. Del. 1953), *aff'd*, 351 U.S. 377 (1956).

[8] 118 F. Supp. at 219.

which the contracting parties may use the trade secret."[9] The Supreme Court affirmed the decision of the lower court in favor of Du Pont; the majority decision did not reach the question of the territorial restraints in the licensing. In a dissent, however, filed by Chief Justice Warren with whom two other justices joined, it is disquieting to note that the observation was made that the agreement "to divide the world cellophane market" was illegal per se. The dissent took the view also that a supplementary agreement providing for the interchange of technological information "tightened the cellophane monopoly and denied others any access to what went into the common pool."

In reaching any conclusions concerning restrictive covenants in licenses of know-how, the *Beneflux* and the *Du Pont* cellophane cases are to be contrasted with the facts and the holdings in the earlier *National Lead,*[10] *G. E. Carboloy,*[11] *G. E. Lamp,*[12] *Timken,*[13] and *I.C.I.*[14] cases. Those cases are usually read as attacks on the legality of territorial restraints. And, indeed, they are just that. Their teaching, however, it seems to me, is not that territorial restraints are per se illegal, but that in a setting of cartel-like organization of an industry among large and powerful members, restraints are unacceptable particularly when coupled with a host of other activities in aid of a broad and underlying restrictive purpose. Moreover, a close reading of the cases shows that the character of much of the know-how involved was frequently generalized manufacturing technological information in covering all of the products subject to the restrictions, not of the highly secret and definable scape of that in the *Beneflux* and *Du Pont* cases.

Time does not permit a detailed analysis and comparison of the cases that I have just referred to. I am not sure, in any event, that such an exercise would be very rewarding. I would like, however, to outline some conclusions to be drawn and to consider some factual settings that have not yet been before the court, and that suggest the varieties of problems still to be dealt with by the courts.

I think it reasonably clear from the decisions to date that the courts will not take a per se approach to restrictive convenants in the

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[9] *Id.*

[10] United States v. National Lead Co., 332 U.S. 319 (1947).

[11] United States v. General Electric Co., 80 F. Supp. 989 (S.D.N.Y. 1948).

[12] United States v. General Electric Co., 82 F. Supp. 753 (D.N.J. 1949).

[13] United States v. Timken Roller Bearing Co., 83 F. Supp. 284 (N.D. Ohio 1949), *aff'd,* 341 U.S. 593 (1951).

[14] United States v. Imperial Chemical Industries, Ltd., 100 F. Supp. 504 (S.D.N.Y. 1951).

licensing of know-how. Each case appears to stand on its own particular facts. If any flat statement can be made at all, I would think it pretty safe to say that where there is truly secret know-how crucial to commercial production and where there is no existing competition, and no immediate potentiality of competition between the licensor and the licensee, a geographical restraint will be upheld because, in theory and in fact, no competitive harm has been done. That is to say, but for the disclosure to the licensee of the secret know-how, the licensee could not have competed anyway.

Let us consider a few varying factual settings. Assume that the know-how is truly secret and substantial but such that it can be shown that it could be duplicated with three or four years of research and pilot production. If the licensee were a substantial company having the capability of the required research and experiment and the likelihood of pursuing it, would the geographical restraint be upheld for a period longer than that which it would reasonably take for the licensee to accumulate the necessary know-how?

It seems to me unlikely, at least, that a court would support an agreement not to compete in those circumstances in perpetuity. Certainly, in any case, such an agreement would become unenforceable if and when the secret technology became a part of the public domain.

Also, what will happen in a situation where the licensee is a newcomer to the industry and members of the industry other than the licensor have comparable know-how which might have been sold or given to the entrant without restriction? Would the courts in that circumstance apply the logic recently imported into the failing company doctrine by the Supreme Court and, for example, require a showing that the necessary secret technology without restriction was not available to the licensee from other than the licensor?

Take another situation. Assume that two manufacturers, Company A and Company B, are already competing in the manufacture and sale of widgets, but that Company A has a superior and truly secret process. Suppose Company B takes a license with a territorial restraint applying to widgets produced with A's secret process. Then suppose that B changes over his entire production of widgets to utilize the secret process. I believe that a court would find the observance of the territorial restraint in those circumstances difficult to uphold unless B's process was so inferior as to give rise to the probability of its competition being eliminated in any event—a sort of failing company situation.

One final example—what if the trade secret is incorporated in or relates to only one aspect of a larger product? Will the territorial

restraint also be operative as to the larger product in which the secret is incorporated?

I suggest that the answers to the foregoing situations are not to be found in any comfortable reliance on the doctrine of ancillarity. I have every confidence that each factual setting should be made subject to individual analysis and that it is safe to include a territorial restraint only where no competition exists and, but for the disclosure of the trade secret, it is clear that no competition would exist.

I have said nothing up to this point concerning limitations other than a territorial limitation. It seems to me that wherever the courts would uphold a territorial limitation, i.e., a limitation which would prevent all competition between licensee and licensor, it would follow that a limitation upon the field of use or a quantity limitation, as constituting a less complete restraint, should be approved. I cannot prove this observation because as far as I can determine there are no cases in this area at all. However, the logic of that conclusion is reasonably unassailable. In circumstances where a territorial limitation would be approved, a lower form of restriction of competition should also be legal.

I realize that logic can lead one astray in the law. If we followed the logic of this situation out to its end point, I would be in disagreement with some of my learned brethren who have commented in this area. That is to say, I would find myself saying that in circumstances where a territorial limitation would be approvable, a price limitation should also be approved. To repeat, where the parties may agree not to compete at all, it would seem reasonable that they may properly agree to compete but on a limited basis in respect of price. That conclusion is given some support by no less authority than the Supreme Court of the United States.

In the landmark decision involving Dr. Miles Medical Co.,[15] that Court outlawed resale price maintenance and by way of dictum said that a "secret process may be the subject of . . . sale or license to use with restrictions as to . . . price." Of course, that dictum is of an antique vintage as antitrust law goes, *Dr. Miles Medical Co.* having been decided in 1911. In the meantime, we have the *General Electric*[16] decision upholding price restrictions in patent licensing and the narrowing of that decision in subsequent cases together with a continuing attack on it by the Antitrust Division. In short, I would not give too much for the chances of logic in this situation. My own estimate would be that no matter how strong the facts were in support of a

[15] Dr. Miles Medical Co., v. John D. Park & Sons Co., 220 U.S. 373 (1911).
[16] United States v. General Electric Co., 272 U.S. 476 (1926).

showing that but for the know-how license agreement there would be no competition of any kind, the courts would simply not reach that conclusion where price control is involved. Agreements on price are considered by courts to be so obnoxious these days that I have little difficulty in concluding that a know-how license would rarely, if ever, pass muster if accompanied by such a restraint.

Thank you. (Applause.)

MODERATOR ANDERSON: Thank you, Miles, for a very thoughtful and provocative paper.

In my role as Commentator let me give you a little bit of incidental intelligence concerning the *Beneflux* case. As Mr. Kirkpatrick told you, the original agreement was between an English company and an American company to divide territories. The American company was the plaintiff. It was the English company that "ratted" on the agreement and it was an Irish judge that heard the case below. (Laughter)

Your next speaker is currently a professor at the University of Iowa College of Law and next year will be a visiting professor at the University of Texas School of Law.

He earned an SJD degree from the University of Michigan Law School, where he specialized in trade regulation law and also was privileged to study under Professor Oppenheim.

While at Michigan he wrote a monograph entitled: *Territorial Trademark Rights and the Antitrust Laws,* published by Michigan Legal Publications.

He also drafted the Uniform Deceptive Trade Practices Act which was approved by the American Bar Association and adopted by the National Conference of Commissioners on Uniform State Laws. That draft has since been enacted by eleven states. Currently he is a research associate of your host today, The PTC Research Institute of The George Washington University. In that capacity your next speaker is engaged in research projects concerning the interaction of unfair competition and antitrust law.

I am sure we couldn't have selected any one who is more qualified than he to address you on that general subject.

It is now my pleasure to present to you Professor Richard F. Dole, Jr.

**RICHARD F. DOLE, JR.***

Thank you very much.

The Federal Trade Commission is paying close attention to restraints imposed on trade symbol frachisees by trade symbol franchisors. The Supreme Court's tendency to ease the requirements for treble damage liability, particularly with respect to tying clauses, make this subject of additional import to businessmen.

Territorial restrictions on franchisees' operations find their principal justifications in the difficulties of establishing and maintaining a new product or service and in efforts to save a failing company. Trade symbol licensing does not provide an independent justification for territorial restraints.

A trade symbol licensor's obligation of quality control can provide a legitimate reason for tying the purchase of goods or services to the license of a trade symbol. However, a trade symbol licensor must vindicate such a tie by establishing that the formulation of specifications either is unnecessary because the tied items are the subject of a valid patent, copyright, or trade secret, or is impracticable. Recent rulings by the Supreme Court and the Federal Trade Commission also indicate that otherwise defensible tying clauses may be invalidated if they are so one-sided as to evidence undue coercion of independent franchisees. (Applause)

### 3. Empirical Study on Patent Licensing Limitations

MODERATOR ANDERSON: We thank you, Dick, for the very thoughtful analysis of the franchise situation.

Now, may I suggest at this time that you all write and pass up the questions that you want these experts to deal with at the conclusion of our next two sets of comments. I encourage you to do that at this time.

The next subject is the "Empirical Study on Patent Licensing Limitations." I have always wanted to introduce your next speaker and this is the first time I have been so privileged.

He has an eminent career in the teaching profession having served (as Adolph Magidson pointed out at noon) as professor of law at George Washington University from 1927 to 1952, and as a professor

* The following is a summary of Professor Dole's report to the Conference which is published in full in Volume XIII, No. 2 of *IDEA*.

of law at the University of Michigan for some 15 years thereafter.

Time does not permit my recording all of the many honors your next speaker has received and so richly deserved. Suffice it to say, he served as Co-Chairman of the Attorney General's National Committee to Study the Antitrust Laws—a job he performed with great distinction.

He was the recipient of the Jefferson Medal from the New Jersey Patent Law Association in 1951 and in 1957 he received the Charles F. Kettering Award of your host today—at the time it was known as The Patent, Trademark, and Copyright Foundation of The George Washington University.

Your next speaker has written extensively and responsibly in the field of antitrust law and his many writings in that field include some significant papers on patent-antitrust matters. I remember his "peaceful co-existence" very well. He also has been very active in the American Bar Association Antitrust Section. Thus, over the years he served as Chairman of the FTC Act Committee and the Clayton Act Committee, then as Section Delegate to the ABA House of Delegates and finally your speaker was elected Chairman of the Antitrust Section in 1961.

He continues, of course, to serve The PTC Research Institute as an adviser and in that capacity I am sure he had a lot to do with setting up the program for today's and tomorrow's Conference.

There are antitrust lawyers in this country who are older than your next speaker and who have practiced more antitrust law in the courts than he has. However, I believe there is no one who has made any greater contribution to the field of antitrust and unfair competition law than that made by Oppie, and it is now my great privilege to present him to you, Professor S. Chesterfield Oppenheim. (Applause)

## S. CHESTERFIELD OPPENHEIM

That really deserves a bit of reciprocity if you are wondering about the Moderator-Commentator designation.

Well, this is not a trade secret. Having been asked to be a moderator on various occasions for the Institute, I finally said to Lou Harris a few years ago, this is killing me. A moderator, as I understand it, simply

introduces people who are to speak and he can't say anything himself. I said for someone in his teaching career who could talk for 50 minutes without calling on a student, this is more than one can bear. So I insisted on the idea of being able to comment. Cy, you shouldn't feel inhibited. This means you can have your say any time you want to.

At this stage of the project we are prepared to present the reasons for launching this Institute study and a summary description of the nature and scope of the questionnaire on limitations in patent and know-how licensing in the United States.

Before finalizing the questionnaire, which will be sent this month to a large representative sampling of industrial companies in various industries, we followed the Institute's policy of first submitting an initial draft to the Institute's Research Staff for review and suggestions. In this instance, the annual meeting of the Institute's Advisory Council enabled us also to obtain further suggestions from that body of distinguished members. The draft of the questionnaire was then sent to the patent counsel of ten leading companies in selected industries for their comments and suggestions. The sole purpose of these preliminary steps was to achieve maximum clarity in the formulated questions to assure both the accuracy of the requested information and to test its practical availability.

The responses to this test sample have been most encouraging. We received constructive suggestions, all of them directed toward resolving ambiguities in several questions. To our gratification none of the responses stated that the information sought was not available.

My colleague, John Scott, will address himself to the questionnaire. My purpose is to tell you why the Institute initiated this empirical study and what we hope to learn from it.

Why this study? The short answer is that it will fill a vacuum in empirical information on types of patent and know-how limitations and royalty practices in licensing agreements and the reasons for their use. The Institute believes that the gathering and analysis of such factual data will serve to increase the understanding of both the public and private interests involved. Similar Institute studies on foreign licensing by U. S. companies by Jack Behrman and on patent and trademark licensing by Lightman and Bangs, all members of our Research Staff, have been commended by the patent and trademark Bar as valuable empirical surveys.

It is noteworthy—and I may add, astonishing—that the large body of judicial decisions and the vast literature on the legal, economic and business aspects of patent licensing have produced only a modicum of factual data on that subject with respect to licensing limitations in

particular industries. The literature is replete with analysis of case law, abstractions and speculative commentaries based on opinions. This has value as a forum of ideas but it leaves a gap in authenticated industrywide facts on patent licensing.

The recent White House Task Force on Antitrust Policy proposed a Patent Licensing Act. I refrain from passing judgment on the proposal. I merely point out that the Task Force submitted no empirical support for its recommended Patent Licensing Act.

The case-by-case judicial process in patent licensing cases typically involves records based wholly upon the facts of the particular case. These records are therefore barren of data on patent licensing in the industry as a whole. In that connection the observations of Judge Learned Hand in his opinion in *Cheyney Brothers* v. *Doris Silk Company,* 35 F. 2d 279 (2d Cir. 1929) are truly analogous.

He said: ". . . We just judge upon records prepared by litigants, which do not contain all that may be relevant to the issues, for they cannot disclose the conditions of the industry, or of the others that may be involved. . . . Our vision is inevitably contracted, and the whole horizon may contain much which will compose a very different picture."

We believe our survey for the first time will picture the horizon. It should enlarge the vision of corporate management, government agencies, the courts and the Congress in balancing the private rights of patentees and the public interest in the grants of patent and know-how licenses.

Let me make it clear that our study is not focused upon an analysis of the judicial metes and bounds of the decisional law pertinent to the ongoing accommodation of the public policy of the patent laws to the patent misuse and antitrust doctrines. The spate of law review literature amply covers that area. However, the empirical data we seek will reveal the types and extent of use of rights and the licensors deem to be ancillary and within the ambit of the claims of their patented inventions and trade secret know-how. The Institute's sole objective is to analyze and synthesize the empirical body of information we receive in response to the questionnaire. We scrupulously avoid any preconceptions. We let the factual returns fall as they come to us.

It is nevertheless appropriate to sketch basic considerations which underlie the importance of grounding judicial and possible Congressional judgments upon the solid foundation of factual knowledge rather than subjective opinions.

This audience is well aware of the continuing need for clarification of the licensable nature of patent and know-how rights under the laws

of the land. For decades there have been court adjudications of justiciable issues involving the interaction of the patent laws and the patent misuse and antitrust prohibitions. In perspective it appears that the judicial decisions in the Supreme Court and lower federal courts have evolved to the point where, as of today, the prevailing judicial attitude is that there is no inherent conflict between the exclusivity of patent rights and enforcement against patent misuse and antitrust violations. That, however, only articulates a major premise for reconciling the patent and antitrust laws, namely, that both patent and antitrust public policies stem from the paramount goal of preserving competitive enterprise. As the *Report of the President's Commission on the Patent System* aptly states:

> There is no doubt, in the opinion of the Commission, of the importance to the U. S. economy of both the U. S. patent system and the antitrust laws. Each is essential and each serves its own purpose within the framework of our economic structure. However, conflicts between the two have arisen. But this does not mean that the two systems are mutually exclusive, that a strong patent system is a threat to the antitrust laws, or that the latter cannot be effectively enforced so long as a patent system grants limited monopolies.
>
> On the contrary, the two systems are fully compatible, one checking and preventing undesirable monopolistic power and the other encouraging and promoting certain limited beneficial monopolies. In this way, each may easily achieve its objective in a strong economy.

The Commission's Recommendation XXII pertaining to patent licensing espouses incorporation in the United States Patent Code of a Rule of Reason yardstick applicable to patent license limitations. This would require the courts to consider all relevant factors before determining, in any given case, (a) whether the limitation is within or outside the claims of the patented invention, and (b) if the limitation is related to the patent claims, whether, under the circumstances, the limitation is a reasonable means of securing to the patentee the full benefit of his patent grant. This would constitute a Congressional sanction of the reasonable reward rationale announced by the Supreme Court. The Rule of Reason would be the guidepost for drawing the line between lawful fruits of the patent grant and illicit gains from patent misuse or antitrust abuse.

Apparently the vigorous opposition of the former head of the Antitrust Division, Donald F. Turner, accounts in large measure for the omission of the substance of Recommendation XXII in the bills introduced by Senator McClellan. Such a provision is included in Senator Dirksen's bill.

My understanding is that Senator McClellan has indicated that he

has not foreclosed support of such a provision. At any rate, to the extent that the courts now apply a Rule of Reason approach, we believe that our empirical survey will provide them with a range of empirical information on the use of each major type of patent license limitation which has not been, and in my opinion cannot be made available through the records in conventional case-by-case litigation.

The returns thus far from the test questionnaire sent to ten major companies reveal that none of them employs a first sale price limitation or an assignment grantback commitment in their patent licenses. If this should prove to be generally the case, in the returns from the questionnaires to be mailed out this month, and I repeat, if, and only if this is so, it would provide a basis for questioning the repeated efforts of the Department of Justice in seeking unsuccessfully to persuade the Supreme Court to overrule its sanction of a first sale price limitation in the particular circumstances under which it was sanctioned in the 1926 *General Electric* case. Likewise, the recent questioning by Donald F. Turner, the former head of the Antitrust Division, of the Supreme Court's approval of an assignment grantback in the *Transparent-Wrap* case, would appear to have an insignificant impact on our economy contrary to the government's apparent assumption if, and only if, empirical data we receive shows an assignment grantback commitment is rarely required.

Mr. McLaren recently stated that the Department of Justice will soon file a civil complaint challenging under Section 1 of the Sherman Act patent licenses which require an assignment grantback of all improvement patents. He said this will in some degree question the *Trans-Wrap* decision, although he thinks that case is distinguishable. He expressed the view that a nonexclusive license grantback on improvements may be a legitimate provision.

It remains to be seen which way the returns go. The illustrations I have posited are intended merely to stress the urgency of having empirical information as a means of gauging the extent of use and reasons for use of each type of license limitation covered by our questionnaire.

Finally, I point out that the dictionary meaning of the word "limitation," or its synonym "restriction," should not be equated with the legal meaning and usage of those words in patent licenses. It is elementary that the patent grants the right to exclude all others from making, using, or selling the patented invention throughout the United States.

Every patent license authorizes the licensee to practice one or more of those divisible rights of the patentee. This is a waiver of the

patentee's right to sue for infringement provided the licensee stays within the bounds of the license grant. Hence, every patent license cuts down the totality of the patentee's lawful rights of exclusion. Therefore, if a particular patent license limitation is found to be reasonably ancillary to the scope of the claims which mark out the bounds of the patentee's exclusive rights, then there is neither patent misuse nor antitrust violation. However, when a contractual limitation in a license is unrelated to the patent claims, its validity must be tested under the patent misuse doctrine and the antitrust laws.

Thank you very much. (Applause)

MODERATOR ANDERSON: Thank you, Oppie.

Your final speaker this afternoon will also have some comments about the empirical study. Like each of the other members of this panel he too is an expert in the field of antitrust. He is an outstanding legal scholar in the field. After graduating from law school at Dickinson he came to Washington and served as Assistant Editor of BNA's *United States Law Week.*

In 1961 BNA began publishing its *Antitrust and Trade Regulation Report,* and your next speaker, John Scott, served as managing editor of that publication from the time it began its operations in that year down to 1967.

Now, although he is in private practice in this city with Worth Rowley, he continues to serve as a consultant to BNA's ATRR. He and Ed Rockefeller co-authored the Bureau of National Affairs book entitled, *Antitrust and Trade Regulation Today: 1967,* which consisted of selected analyses from the antitrust publication.

It is an excellent book and I am told he is now writing a similar book for the ATRR, which will be called *Antitrust and Trade Regulation Today: 1969.*

I can tell you with confidence that any publication he authors is bound to be exceedingly well done.

Without further ado let me present to you John C. Scott of the Washington Bar. John. (Applause)

We will forgive Cy that last fillip about the quality of the book coming up. He has three problems. First of all he had to follow Oppie's introduction with me. Secondly, he didn't have much to work with in my case. And, third, at this late hour drastic measures are called for to keep not only interest but bodies in the audience.

I won't keep you long. All Oppie left to me was a description of the questionnaire we are going to mail out this month.

An astonishing amount of work, I discovered, goes into the preparation of one of these questionnaires, into condensing it and rephrasing it into something that will, first, get all the information the Institute wants, second, get only the information it wants and, third, get it in a clear and unambiguous way that makes it easy to interpret once the figures are pulled off the filled-out questionnaire forms.

In preparing this one Oppie and I first got together and selected the relevant areas of activities or categories of licensing practices, and then I prepared a rough list of the questions we wanted to ask.

Just how rough my questions were I found out when we sat down with the Institute's Research Staff and heard their criticisms and suggestions. I discovered it is a real art to frame a question that will elicit only the information you want and all the information you want, and yet can be quickly and readily answered by busy executives who have other things on their minds.

The questionnaire, as we finally drafted it, is designed to develop statistics from seven principal categories of licensing practice. Not only limitations on first sale price, field of use, quantity of use, and geographical area of use but also on royalty policy, package licensing, and grantbacks.

To get some sort of a basis for assessing the weight we should assign each of the answers we get back, we also ask for general background information relating to the size of the responding company, the nature of its business, the extent of its patent portfolio and the volume of its patent licensing and know-how licensing activity. The questionnaire does not provide for identification of the responding company.

Anticipating the possibility that some of the companies may license know-how independently of patents, many of our questions called for separate answers for know-how licenses. On the other hand, when the company licenses its know-how only in conjunction with patents, we think we made it clear that a single consolidated answer is expected.

Perhaps the key problem to be solved was the selection of the

specific form each question was to take. It won't help us much to ask a patent owner whether he does or does not use a particular clause in his patent licensing agreements. More often than not the answer would be, "sometimes," which won't help us much. We need to have some indication of how often the clause is used. Yet, to request numbers of licensing agreements containing a particular provision or limitation would ask the responding executive to undertake a search for more detail than is really necessary for our purposes.

What we have requested, therefore, is that the frequency of a particular practice be designated. We have done this by setting up tables, or charts, in which we ask the responder to check categories of frequency, categories which we have designated with the words "always," "usually," "often," "occasionally," "seldom," and "never." Well, obviously at least four of these words are not very definitive as quantitative standards. You would have no trouble with "always" or "never."

For the other four options set out in these tables or charts, in what you might call glorified multiple choice questions, we have assigned a range of values set out in terms of percentages. If the responding company uses a clause or limitation in more than 60 percent of its licensing agreements but not in all of them, we ask him to check the box marked "usually."

To "often" we assigned 30 to 60 percent, "occasionally," 10 to 30 percent, "seldom," below 10 percent. Now, here, in using numbers I don't mean to suggest that we are looking for mathematical precision. We are looking for quick estimates from a licensing executive reasonably familiar with a company's patent portfolio.

Actually this type of multiple choice question serves another important purpose. If we are to have separate data for each of the various types of limitations that have been talked about here today, we would have quite a long list of questions. And we do have quite a long list of questions to ask.

By using these charts we have been able to consolidate many of the questions into one question answered very readily by putting X's or check marks in appropriate squares or boxes.

In the question about grantback commitments, for example, the questionnaire form gives a chart with three major columns, one for grantback agreements calling for nonexclusive licenses, one for those providing for exclusive licenses and one for those requiring assignments.

Each of these columns is in turn divided into six sub-columns for the six frequency designations I have described earlier.

In each of the three major columns the respondent is asked to designate the frequency of grantbacks covering specified existing patents, those covering improvement patents and those encompassing all new patents.

Now that I think about it, it sounds very complicated. But you have to see this thing to believe it. What you have is one question with a chart under it in which you put a few X's and you have answered nine questions.

In most of these charts there is also a provision for a type of answer whose importance I would like to emphasize. In asking about royalty formulae and quantity or territorial limits, we cannot possibly anticipate and list every conceivable type of provision. Therefore, after listing the three or four most common forms, we have added a line designated "other" and asked the patent owner to identify briefly what other type of arrangement might be in effect and then to designate the frequency of its use. If our addressees will take full advantage of that line in each chart, it will greatly help us to fill out our collection of data.

Following most of these charts is a supplementary question that gives the company a chance to identify the business reasons for adopting any limitations it has been using to some extent.

Our purpose in inquiring about reasons or justifications is very clear to you, I am sure, now that you have heard our luncheon speaker. The key to a study like this one is the nature of the considerations that make each of these limitations desirable, necessary, or perhaps even unavoidable.

I might say at this point, in view of the fact that Mr. McLaren, the Assistant Attorney General, called invalid patents a public menace, that there isn't any place on this questionnaire for any one to indicate what percentage of his patents are invalid.

A determined effort has been made to evolve a simple straightforward questionnaire form to be answered with a minimum of time and effort. As Oppie indicated to you, we think the questionnaire met that test in the mailing we have already sent out. In addition to being encouraged by the responses to the test mailing, we also have been significantly helped by it. A number of the cooperating company officials discovered ambiguities and made suggestions we incorporated in the final questionnaire to be mailed this month.

We are very pleased with the cooperation received from these few companies and their obvious willingness to join us in this important study. We will, of course, be reporting to you very extensively later about the results of the study. (Applause)

***Panel Discussion and Question Period***

MODERATOR ANDERSON: Now, to the dedicated group that still remains, we salute you.

We promised you earlier to answer questions and we are going to keep our promise. We are not going to have a break now because of the time.

I think formatwise I shall first call upon Mr. Kirkpatrick to come up here and answer a question directed to him. As I call upon each panelist to answer questions, I hope he will condense the question as much as possible and, because of time, answer it as briefly as possible. Here we go.

MR. KIRKPATRICK: This is a very good question; I will be brief.

The question is as follows: "In a situation where the know-how is not definite and secret enough to justify restricting licensee sales to a specific territory, might it still be permissible to restrict the licensee to manufacturing in only, for example, one particular location in one particular country?"

I think that the answer to that depends upon the purpose of the restriction. I take it as implicit in the question that the quality and character of the know-how would not pass the "but for" test. In other words, it could not be shown that but for the licensing of the know-how there would be no opportunity to compete. So I suggest that the limitation of manufacturing to one location, if in fact competition is thereby prevented, would not be approvable under the law.

MODERATOR ANDERSON: A question in terms of oil company mergers.

"How do you think the regional small oil companies feel after the mergers, Union-Pure, Atlantic-Richfield, and Ohio BP?"

MR. ADELMAN: The answer to that is fairly easy. I don't know. Furthermore in terms of research technique I don't see any way of finding out. I certainly don't think much has been learned by asking them, because what they are going to tell you is apparent. Therefore I think it improper to reason as follows: Even though the logic would be valid. That is to say they don't like it. That must be a good thing because if competition is effective it is also hard on the competitors. The conclusion is valid but the fact that they say it is hard on them has to rest an unproved assertion.

The second question: "Assuming we must establish a threshold defining big business, what criteria would be practical and justifiable from an economic viewpoint?"

The question is very carefully phrased, as you can see. I would say that the kind that cannot be given any meaning let alone justification is an absolute standard.

Millions of dollars. Absolute size is just absolutely irrelevant. There is nothing more to say about it.

One which is relevant is relative. Share of market. We are back, then, at the Department of Justice merger guidelines. There are all kinds of things you can say and truly say in criticism of those guidelines. They use only a simple crude criterion, industry isn't that simple and so on and so forth. I can't take the time to explain why. I think they are justifiable, even though there could be very little argument about pushing those percentages up, down or sideways.

MR. JACOBS: Two questions together:

"The patent right is the right to exclude others from making, using or selling the invention. This right is not transferred but merely waived in a patent license. In what sense, then, can a patent license be viewed as an acquisition of assets within the meaning of Section 7?

Another question: "Is a non-exclusive license an asset?"

Our Moderator-Commentator has added a very direct little comment here saying a license is really a convenant not to do so. If nonexclusive, is that an asset?

Certainly this raises a very technical issue that perhaps will be resolved one day, and I am not the Supreme Court. But my suggestion would be that you not be too technical in considering what is actually being acquired. I believe the courts have pointed out that an asset is really anything of value and have said Congress intended to take a broad view of what was an asset. I did not mean to suggest that *all* licenses are acquisitions of assets under Section 7. The effects of the license must be evaluated.

There is no magic term. Even if all you acquire technically is a waiver against being sued, in certain circumstances a court might feel that you have acquired an asset.

I can't give you the answers to all these problems. I merely meant to give you some straws in the winds, so to speak, so that you could think about them.

MR. SCOTT: I have two questions.

The first one relates to the questionnaire, whether the identity of the answering company is to be kept secret.

You heard earlier today reports on three other questionnaires, as I remember: Bob Bangs, Joe Lightman, and Dennis Meyer all talked about other questionnaires and you heard no company names, only numbers. We merely take numbers off these responses. There is no

place on them to identify the company and the Institute's policy is that, once the answers are taken off the completed questionnaires are disposed of.

The other question: "A licensor requires a licensee to sell the licensed product to a patentee at a price less than the licensee's price to others—for example 95 percent of the sales price. Assuming this is an exclusive license, is it a violation of the Robinson-Patman Act?"

It isn't clear to me what difference such a requirement would make if it is an exclusive license. If I were representing either the patentee or the licensee, I would make a defense that this is part of the compensation paid for the use of that patent—paid for the license.

I would prefer to be involved earlier in advising the parties to this agreement. Perhaps this whole problem can be avoided by writing a licensing agreement that adds a little bit to the royalty to make up for this 5 percent discount that the patent owner wants. Unless there is some motivation for this type of provision other than additional yield from the patent, I don't see any point of running the risk of a Robinson-Patman Act suit, although it might well be defended on the theory that it is just a further price paid for the patent license.

PROFESSOR DOLE: One question asks: "Are you predicting the demise of the sale of a franchised item at a standard price, for example, the procedure used by the MacDonald hamburger franchise operation?"

The prediction that I will make is that the standard price will soon be higher. I should also add that my comments were principally directed to a franchisor's ability to control the price that a franchisee pays for ingredients and not the price which the franchisee charges the public.

You all know that a franchisor cannot legally fix that retail price. On the other hand, a franchisor can recommend a retail price. Indeed, the ability to do so on the nationwide basis was reaffirmed in the *Serta* case.

Another question: "Are you saying that a franchisor may require a franchisee to purchase a product and defend on the ground that there was a trade secret involved when a tying allegation was made?"

I would say yes. At least, if a trade symbol identifies the subject of the trade secret.

The Federal Trade Commission so held in the *Carvel Corporation* case in 1965. The *Carvel* case has been eroded by the *Fortner* decision on the issue of whether there is a sufficient restraint of trade to constitute illegal tying, but I do not believe that it has been eroded with respect to a trade secret defense to illegal tying.

A final question: "Licensor permits use of trademark without sales limitation; requires purchase of an ingredient; limits manufacture to a single plant. Ingredient no secret. What do you think?"

I think that the attorney for that franchisor should have in his files a business reason for restricting the area of manufacture. It is possible that some evil mind might think that the reason that the area of manufacture was restricted was because shipping rates made price competition more difficult in other areas once the place of manufacture was restricted.

Thank you.

MODERATOR ANDERSON: I am just informed that the hotel has to serve 280 people here for dinner in 20 minutes.

PROFESSOR OPPENHEIM: This question is: "Would you apply a reasonable ancillary test to limitations on the use of definable metes and bounds know-how by a license in the same way you apply it to the claimed subject matter of the patent?"

My answer is yes. I am convinced of that and I always have been. You first have to be able to establish that you have valid know-how rights or trade secrets. Also you have to be sure, in the case of a trademark, that you have a valid trademark. If you are sure of those, my position is that the reasonable ancillary test should apply.

This submitted comment isn't a question but it says the reason we don't require some of the licensing provisions to which you made reference is not that they are not needed but that we are afraid. I wonder if the question is: Should we be afraid?

We are not able to tell you whether you should be afraid or not because what we want is the factual information and reasons. If we get replies that say we never use this provision, even never on a Sunday, why then we have the data. If the reason is that we would use them but we are afraid because of the scope of the misuse and antitrust curbs, this is the kind of information we want. So, we just can't really give you advice on should you be afraid, but we do think that if Congress thinks you shouldn't be so darned afraid, or if a court thinks you are too darned scared, the Congress might act or a court might say our Rule-of-Reason decision now gives you a little confidence, so don't be so scared.

DIRECTOR HARRIS: Thank you, Mr. Moderator-Commentator Anderson and your distinguished panel for a rich and rewarding discussion.

And, Ladies and Gentlemen, we will see you at 7:30 in the Diplomat Room.

(Whereupon, the above meeting was concluded at 6:30 o'clock, p.m.)

# The Kettering Award Address

The Kettering Award Address was given by John M. Olin, Honorary Chairman of the Board of Olin Mathieson Chemical Corporation, at a dinner in his honor at the Thirteenth Annual Public Conference of The PTC Research Institute held on Thursday evening, June 5, 1969, at the Shoreham Hotel, Washington, D.C. Mr. Olin received the Institute's 1968 Charles F. Kettering Award in recognition of his outstanding contributions as an engineer, inventor, business executive, educator and public servant.

# Business Acquisition Trends and Creative Productivity

JOHN M. OLIN

THERE IS A SAYING THAT if you wait long enough things will change. I can confirm that adage tonight. My fondest dreams never called for me receiving a medal in Washington. And this is a change!—not just the award of the medal but your gracious consideration of me for it. Leaving aside the unfavorable comments emanating from Drew Pearson, what Olin usually receives from Washington is a communication entitled "Greetings" and signed by the Federal Trade Commission or the Justice Department or some branch of our bureaucratic government seeking renegotiation of profit, more speed in production at lower cost, free service or what not. Perhaps even now I might be a bit hasty. I'd better first read the citation—.

I appreciate your inclusion of me in the distinguished company of your former medalists, and although some of them have perhaps made more important contributions to the patent system, none has been a more ardent advocate of that system than I, nor perhaps has been at it so long.

It is with concern for a possible lessening in the use of our patent system that I pose a question for you tonight. I ask you to think about

it. The question is: "Are present business acquisition trends stifling creative activity?" If so, a logical conclusion is there might be a reduction in the number of inventions with a resulting lesser use of our patent system.

Industry grows by innovation. What is innovation? Simply, it means taking inventions and putting them to use in our economy by converting them to useful commercial products or processes. It means taking the results of R&D, adding the necessary ingredients of engineering, manufacturing, production, marketing, sales, patent, law, et cetera, and coming up with a product or process satisfying a need (usually social), and creating a new source of income and profit for the owner. The inventor is the one who provides uniqueness—as I will say later, the one who pursues the answers to the question "why?" The inventor does not necessarily produce the profitable product or process. He simply supplies the ideas. The balance of the business team converts the invention via the innovation process to the commercial product. Innovations in any given company today usually come from one of two sources: its own R&D, or outside acquisition.

Today American business is in an age of growth by acquisition. Corporations to a greater extent than ever before are seeking innovation via the acquisition route rather than pursuit of new processes and products from their own research and development. In the *Harvard Business Review* of January-February 1969, Mack Hanan, a management consultant, notes that 75 percent of the annual U. S. research and development expenditure is unproductive, does not assure regular production of marketable new products or new markets for old products, and fails to produce major break-throughs. He goes on to say and I quote:

> For this reason many manufacturers have more or less abandoned their laboratories to rush hither and yon in search of greener pastures in the form of acquisitions.

Although it is too early to say, I wonder if 75 percent of the money expended for acquisitions will prove nonproductive; that is, will not afford the acquiring company a reasonable return on the money spent for the acquisition. The too-long, intolerable wait for corporate earnings from its own R&D may not be sated by any "instant profit" emanating from the managing of acquired companies. For acquisitions can also be fraught with problems—problems of assimilation of acquired people and acquired technology into the new corporate family. Very often the acquisition just doesn't work out, for reasons not foreseeable nor attributable to either party.

The extent to which corporations are abandoning their own R&D laboratories, and the wisdom of it, I do not wish to debate. Although the bulk of the R&D expenditures is made by a handful of companies, the extent of the expenditure is not necessarily commensurate with the amount of resulting innovation. I think that if one pursues the matter he will find that independent inventors (including inventor-entrepreneurs) and a number of small technologically-based companies are responsible for quite a high percentage of the inventions and innovations of our century and the profits that go with them. Certainly these groups have attained a much larger percentage of the successes than their investment in these activities would suggest. Let me add that when a company abandons its research and development effort, which is only roughly about 15 percent of the total cost of innovation, it simultaneously must abandon the other correlative activities which are necessary to bring R&D results to the marketplace. I mean the related activities of design, engineering, market development, manufacturing, et cetera.

Will industry's abandonment of technical laboratories and the scientists working therein stifle creative productivity? I do not think so. I think it will just transfer the creative productivity to another arena. The rewards of inventiveness are still very great. I think it can be safely said our present era continues to afford a great opportunity for the success of inventiveness, and the preoccupation of present American industrial management with growth by acquisition has given added incentive to scientists to create their individual contributions some of which will become the object of future acquisitions.

A desirable policy of corporate growth therefore should perhaps consist of a program of strong, adequately financed research supplemented by acquisition where opportunities seem to afford attractive returns. Although acquisition is currently the vogue, the significance of research as an attack on obsolescence should never be overlooked. Acquisitions should be viewed like "a new girl in town." She is often too attractive to be ignored and yet must be approached with a trepidation equivalent to "let the buyer beware."

Although it is logical to assume, from the amount of acquisition activity, that most of the best gems have been culled from the field, there will be new gems created, and new attractions for future acquisitions will undoubtedly appear. Who will create them? I believe many will come from the mind and from the activity of the individual scientist. Whether he is one of those turned loose by the closing of corporation laboratories or whether he has always labored in his own vineyard, he is beginning to seek his reward and will continue to do so

in the future, I believe, in the form of equity in his own company or in one formed together with his entrepeneur to exploit the fruit of his invention. We hear more and more stories of scientists, after years of association with industrial laboratories, fleeing the shelters of such security for more risky but more enticing rewards in the form of ownership of their own companies. Perhaps we shall see a furthering of the dream of Edwin H .Land, one of the former Kettering Award winners.

In 1965, Mr. Land upon receiving the Kettering Award told you that early in life he had visualized the creation of a great number of small companies based in science and that up to that date his dream had only been partially fulfilled. I have been a great believer that inventiveness and subsequent innovation thereof are the reward of the person who pursues the answer to the question "why?". You will recall Mr. Land's telling you of the manner in which he embarked on the field of his greatest success. He told you the story of his little daughter, while on vacation in New Mexico, asking him why she could not see right away the picture he had just taken of her. Mr. Land pursued the answer to his daughter's "why?". The question put into motion his thinking processes and the result was the dry camera which produced a picture immediately after exposure. I need not recite for you his reward.

Here I would like to recite my personal exposure to "Why?". While I was a student at Cornell and because I wished to prepare myself for my future association with our family's enterprise, the university authorities cooperated with me in permitting me to specialize in fields and problems related to products embraced by our company. One of these was shotshells, and I was working with Dr. Emile Chamot of the Department of Chemistry in his laboratory on a project which had to do with the fracturing of a paper shotshell upon firing, resulting in the metal head being extracted from the shotgun but the cut-off paper tube remaining in the barrel. We had difficulty in making much progress in solving this problem. Dr. Chamot, late one night, leaned back in his chair and said "Olin, we are being defeated in this study because we have not ascertained 'why' a defect occurs. It has been my experience in such cases that if the reason 'why' the defect occurs is found, often the remedy suggests itself."

This professor made a tremendous contribution to my future and I shall forever be in his debt because I have used his philosophy thousands of times in my analysis of problems in my career which followed college.

Let me give you one important example. After World War I our

company bought all the surplus military small arms ammunition from the U. S. Government for the purpose of reclaiming the valuable components comprising a cartridge, such as brass, lead and cupro nickel, all of which could be used in our operations. At that time we had found no use for the smokeless powder so for some time we burned this component. I felt this was wrong, so we built storage tanks to store the powder under water and initiated a research program to see what could be done to use it.

Smokeless powder was then comprised principally of nitro cellulose from cotton and became unstable after a period of storage. We were defeated for some time in finding a means of using this salvaged powder. The problem was solved by a fundamental piece of brilliant research by one of my colleagues, Fred Olsen, which again illustrated "why?". He discovered why nitro cellulose became unstable upon storage. It was due to retained acid because the structure of nitro cellulose, which, in spite of neutralizing acid and stability treatment, never released the residual acid because it had an equal affinity for the residual acid as it had for any of the purifying agents.

When we found this fundamental "why," the answer was suggested: Put the nitro cellulose in solution, release the residual acids, neutralize the acids and alter the solvent balance to precipitate the nitro cellulose under controlled conditions. This resulted in the first absolutely stable nitro cellulose and smokeless powder, fortunately capable of very strong patent protection. It resulted in our company's ball powder, which is the propellant used in our present military cartridges and all NATO small arms cartridges and is under license to practically all nations producing this cartridge. In addition it has broad application to many other propulsive uses, all of which resulted from the inquisitive "why."

I believe the independent inventor, in pursuing his endeavors in his own laboratory, has opportunities, particularly those associated with time and environment, which are not available to him in industrial laboratories. He does not have to face those recognized barriers which tend to stifle inquisitiveness, whether they be in the form of built-in resistance on the part of some corporate managements to technological changes, or whether they be day-to-day budget problems, or other disturbances. Chances of success of the individual scientist are enhanced, in my opinion, by the quiet and simplicity of his own workshop and by the fact he is working on problems of his own choice, thus adding additional incentive to the creative solution. In this environment he is free of the impact of corporate budgets which often become sensitized by factors having nothing at all to do with the success or

failure of the research project and which are completely outside the scientist's control.

We who engage in research know exploration of the unknown is a risky business and by nature destined to much failure. We know research is costly, that it is time-consuming, and there is no such thing as "instant profit" therefrom. But these are the rules of the game and, if we play it, we must follow the rules. Those who are persistent enough to follow through and remain to the end are those who reap the reward.

I am hoping we will experience in the future the appearance of a number of successful individual companies created from the spark of invention and which companies, in their own time, and in their own way, will produce the innovation necessary to keep the thirst of corporate acquisition sated. Thus, perhaps, the dream of Mr. Land and others will come to fruition.

And lastly a word about our patent system. It goes without saying the success of these companies and, truly, continuance of their very existence can be assured only by the presence of a vigorous patent system affording the inventor the assurance of protection of his creativity. We have before us today, and indeed many of you are studying, numerous proposed changes in the patent system. Particularly, you are looking at the possible establishment of a new international Patent Cooperation Treaty. It is very easy to make changes for the sake of change and in so doing it is very easy to take action that will weaken our patent system, particularly when a great number of people are clamoring for change. It is recommended you be extremely hesitant to make any changes of a wholesale nature or which would amount to a departure from established standards. We should make repair where repair is necessary and not destroy the entire structure as a substitute for repair. History has shown us that our patent system has served us well, that the nation has thrived under it, and it should be supported and not undermined. In studying the proposed changes I recommend, before agreeing to even the least of them, you put it through a dry run, conduct a dress rehearsal, see what it means to you in actual operation. If it raises the slightest problem or disadvantage, I recommend you reject it. You will always have another opportunity if it turns out you were wrong.

Thank you once again for your Award and for your consideration of me. I wish the Institute continued success.

*Friday, June 6, 1969*

SECOND SESSION

# II. Government-Private Issues (Continued)

## Part C—Taxation of Industrial Property

DIRECTOR L. JAMES HARRIS: Good morning, Ladies and Gentlemen.

In my introductory remarks yesterday morning, I alluded to the benefit we hoped to achieve by asking a government representative to moderate the first session, a business excutive to moderate the second session, and a university professor to moderate the third session. I think you are going to get a little extra from the comments of the Moderator for the second part of the second session this morning and for the third session this afternoon. Professor James A. Rahl, who will moderate today's sessions, is Director of Research, Northwestern School of Law and also Counsel to Chadwell, Keck, Kayser, Ruggles, and McLaren of Chicago. He is a well known antitrust-trade practice scholar. I trust his antitrust activities have not inured him to the problems, needs, and accomplishments of the industrial and intellectual property systems. I am very pleased to introduce Professor Rahl. (Applause)

MODERATOR-COMMENTATOR RAHL: Thank you very much, and let me welcome you to the second day of the 13th Annual Public Conference of The PTC Research Institute, which, you will recall, is to

begin in the middle of the topic of "Government-Private Issues," and after that we will move on to a third session entitled, "Impact of Economic, Technological and Cultural Change."

Now, the chairman intimated you might look forward to some kind of comment from me. As "Moderator-Commentator," I interpreted this assignment as entitling me to only a moderate number of comments and, since as he said, I am primarily an antitrust man and today's program has very little to do with antitrust, this should reduce quite considerably the number of comments which I would make.

In fact, to have any of them be relevant, I think I ought to make a couple of them right now because they wouldn't fit at all later. Several of yesterday's speakers referred to what has been called the "Neal Report," or the White House Task Force Report on Antitrust Policy, a task force which was appointed by President Johnson, which reported last July, and whose report was issued only a couple of weeks ago by the Nixon Administration.

As the only member of that task force who is here, I think I have some burden of trying to defend it as long as it has been released. The irony is that President Nixon has released the Johnson Task Force Report but has not released the report of the task force on antitrust that he appointed himself. Perhaps you can figure out the strategy involved; eventually, I imagine, both will be released. In any case, I was intrigued by two comments made yesterday on this report: one by Oppie, who said that its recommendations on changes in patent licensing rules were not supported by any empirical evidence—indeed, that they weren't supported by any evidence at all. And Professor Adelman, in commenting on the recommendations concerning a new statute to deal with conglomerate mergers, said the report gave no reasons for its recommendations.

A report with neither reasons nor evidence might seem to be in pretty bad shape, even though it is 50 or 60 pages long. I was really pretty worried about this until I realized that it was under substantially the same circumstances that the Sherman Antitrust Act came into existence, if you know your history, and I suppose a lot of our important legislation has originated that way. This is not, however, intended to be a defense of anti-intellectualism on my part. I think there were some reasons—even if there is no evidence—there were some reasons for the recommendation on the patent license provisions, which were two in number. One, which Mr. McLaren described yesterday, was the requirement that one who chooses to license someone must make a license available to others who wish it on the

same terms, although he isn't required to license anyone if he doesn't wish to. This would kill the exclusive licensing tactics that are often used today, subject to an exception in the proposed statute.

The other provision, which is ancillary to that, would require public filing of patent license agreements.

I think I see why the Nixon Administration wanted this released—because I think that Mr. McLaren's forthright statement as to what he intends to do in enforcement of the antitrust laws in regard to patent rights and practice probably sounds a good deal more reasonable against the background of those recommendations.

So much for my comments. The rest of them will be shorter and even less meaningful than that.

We get off to a good start with taxation—taxation of industrial property is our first subject, an issue which, no doubt, is of tremendous importance and with respect to which we have two extremely able speakers today.

First, Mr. Milton Meyer, Jr., who is a partner in Hindry, Erickson and Meyer, of Denver, and also Secretary and General Counsel with C. A. Norgren Co., of Colorado.

He is a graduate of Washington University and St. Louis University, with an LL.M. in taxation from New York University in 1953. He is Past Chairman of the Taxation Law Section of the Colorado Bar Association, Past President of the Denver State Planning Council and Past President of the Greater Denver Tax Counsels' Association, a lecturer at numerous universities and at different tax institutes and estate planning institutes, and also a writer of note in this field.

I am very happy to introduce Mr. Meyer. (Applause)

## MILTON E. MEYER, JR.

Thank you very much, Professor Rahl.

Being mindful of remarks made by Assistant Attorney General McLaren at lunch yesterday and by the antitrust panelists yesterday afternoon, I think it is possible that some of you may conclude by the time I am through with my remarks this morning that the United States government that administers the antitrust laws in connection

with the licensing of patents may not be the same government that enforces the tax laws with respect to licensing of patents.

I also hope that in my remarks today I will not have inadvertently made any suggestion to Assistant Attorney General McLaren that may give him a lead as to where to look for his test cases he spoke about yesterday.

While it is common to license the use of intangible industrial property such as patents, know-how, trade secrets and secret processes, trademarks and trade names, and copyrights, with the royalty proceeds to the licensor being treated for tax purposes as ordinary income, it is quite possible to sell such industrial property and have the royalty-like proceeds taxed to the seller as capital gains.

The state of the tax law today is such that it can be said with some certainty that:

(1) *Patent rights* can be transferred (sold) for payments based entirely on the success of exploitation of the rights, and the proceeds, whether realized by the inventor or by some later holder, treated as capital gains for tax purposes. The same is true for lump-sum payments. A rather vast body of case law and, since 1954, a section of the Internal Revenue Code, support this conclusion.

(2) *Know-how, trade secrets and secret processes* can also be transferred (sold) for proceeds taxed as capital gains. The law here is less well developed and additional pitfalls relating to the personal service content of some or all of these assets and technical problems regarding holding periods and the other matters abound. Know-how transferred with a patent may tend to fare better.

(3) *Trademarks and trade names* can be transferred (sold) for proceeds taxed as capital gains. The case law dealing specifically with this class of intangible industrial property is not extensive but cases dealing with patents are thought to apply.

(4) *Copyrights* can also be sold for proceeds taxable as capital gains but not by the creator of the copyrighted work. This prohibition is expressly stated in the Internal Revenue Code and also applies to persons acquiring the copyright from the creator in nonsale transactions such as gifts and in tax-free transfers to trusts, partnerships and corporations. Sales by most noncreators, however, are governed by the principles established in the patent transfer area.

Time will not permit any detailed treatment of capital gains transfers of know-how, trade secrets, secret processes, trademarks, trade names and copyrights. My colleague in this presentation, Mr. Creed,

has collaborated with Mr. Dennis Meyer and with Mr. Robert Bangs in learned articles on these subjects, which I commend to your attention.

I wish to discuss briefly three matters:

(1) The factual characteristics that determine whether a particular transfer of patent rights results in a sale taxable at capital gains rates or as a license productive of ordinary income.

(2) Some references to a recent tax case which illustrate these factual characteristics and a possible approach to future litigation in this area.

(3) An appeal to you as members of the patent, trademark and copyright bar and of that segment of industry dealing with this class of property to lend your support to the eradication of an existing provision of the tax law that unfairly limits the full realization of capital gains taxation in circumstances otherwise productive of capital gains.

## I

A patent is a legal monopoly giving the owner the exclusive right to make, use and sell the subject of the patent. He also has the right to exclude others from making, using and selling the subject of the patent. An invention protected by a patent normally qualifies as a depreciable asset used in one's trade or business—a Section 1231 asset. Like other Section 1231 assets, its sale at a profit can produce a capital gain.

Because of the peculiar, frequently speculative, nature of a patented invention, it is not always possible to "sell" the rights to such an invention for a lump-sum payment. A traditional approach has been to license the use of a patent to an exploiter with the exploiter paying a royalty to the patent holder measured by volume of production or by a percentage of sales of the patented item, or by sales of products manufactured by the patented process. At first blush, this kind of transaction can produce only ordinary income. Royalties, like rent and interest, rather clearly represent the fruits of capital and, hence, bear the rigors of taxation at ordinary income rates.

However, by just changing the emphasis of the transaction slightly, it is possible to convert what seems to be a "royalty" transaction into a sale of a patent, taxable at capital gains rates. The sales price becomes an uncertain amount measured by the future success of the exploitation. And even though these production-type payments are frequently referred to as "royalties" in the agreement and, indeed, the entire

transaction may be labeled a "license," capital gains can, nevertheless, flow.

Notwithstanding the persistent objections of the Revenue Department, a well-defined and growing body of case law has developed the tax conclusions I have described. In 1954, much of the case law was embodied into statute (Internal Revenue Code Section 1235) and, for the first time, capital gains treatment was accorded to the professional inventor who sold his patent for royalty-type payments based on production. True, various factual tests have to be met, but they are not particularly arduous. Section 1235 applies only to individual patent holders, whether inventors or acquirers in subsequent transactions. Corporate and other nonindividual holders of patents still must rely on case law for the desired capital gains treatment. This distinction has become important in an ancillary tax area, as I shall later discuss with you.

What are the important characteristics of the transfer of patent rights for a royalty that are prerequisites to capital gain?

(1) There must be a transfer from the owner to the acquirer of all substantial rights in the patent or in some undivided interest in the patent. This can be stated conversely: that the transferor must retain no substantial rights in the patent or in a particular segment of the patent. What rights will be considered substantial and what constitutes an undivided interest in a patent are the ingredients that have given rise to the multitude of tax cases extant. The variations are almost limitless and result from the largely "sui generis" nature of patent transactions.

(2) Generally speaking, transferring all substantial rights means there must be a complete transfer of exclusive rights to make, use and sell a patented product or process for the life of the patent. Having said this, we can immediately begin to note the liberal exceptions to the rule that the courts have recognized. For example:

(A) It is possible to transfer an undivided fraction of a patent right with the transferor retaining the balance.

(B) It is possible to transfer just the right to exploit the patented invention in a particular foreign country or geographical region of the United States with the transferor retaining all other rights.

(C) It is possible to transfer the right to exploit merely certain claims under a patent with the transferor retaining all other claims.

(D) It is possible to transfer rights in the patent for exploitation within a particular field or industry or with respect to a particular type of application with all other rights remaining with the transferor.

(E) The transferee may possess the right to terminate the arrangement prior to the expiration of the patent, revesting all rights in the transferor.

(F) Even though the parties refer to the transaction as a "license arrangement," identify themselves as "licensor" and "licensee," and speak in terms of "royalties," the courts, and Congress in connection with Section 1235, still find the transaction to be a "sale" if all substantial rights in the invention have been transferred.

(G) The transferor can impose various conditions that will result in the return of the transferred rights to him so long as the conditions are recognized as "conditions subsequent" and, therefore, beyond his control to influence. These include insolvency of the transferee, nonpayment of royalties, shelving of the patent, expropriation of the property of the transferee (including the transferred property rights), nonconvertibility or other restrictions affecting the currency of the transferee's country of operation, et cetera.

(H) The transferor may generally omit the phrase "use" from the magic granting phrase, "make, use and sell," without the result being fatal to capital gains.

(I) The transferor can usually reserve rights to participate in the prosecution or defense of infringement actions or restrict the transferee's right to "sub-license" or "assign" without destroying the sale concept.

(J) The transferor can take back a license from his transferee without upsetting the sale.

On the other hand, the transferor can reserve too many rights or impose too many restrictions, and the cumulative effect is to lose the sale concept and be left with an ordinary income-producing license. The question of the substantiality of the rights transferred or reserved comes into play.

I will not, in this presentation, have the time to go into the special rules and exceptions imposed by statute and subsequent case law on sales by individual patent holders pursuant to Section 1235. I will confine my remaining remarks to patent transfers by corporations.

## II

A careful study of the case law in this area suggests relatively clear guidelines for drafting a transfer of patent rights agreement productive of capital gains. The transferor must be willing, of course, to convey all substantial rights in the property; however, by careful use of

conditions subsequent, he can fairly well protect himself against inadequate exploitation of the rights and consequent loss of economic benefit. The transferor must also be willing to litigate the matter, if necessary, for the Treasury has exhibited a dogged unwillingness to concede capital gains in these transactions, irrespective of its spectacular record of defeat in the litigated cases and the clarity of the law developed by the cases. Unfortunately, as we shall see, new agreements deliberately drafted to take advantage of the capital gains opportunity have, since 1964, run afoul of a different kind of tax problem that substantially dilutes the advantages of capital gains.

Probably most, if not all, of the existing case law involves interpretation of older patent transfer agreements where the draftsman had no knowledge of the possible availability of capital gains. Stated more strongly, it is probable that the draftsman intended to create a license agreement and anticipated that his client would realize ordinary income on the royalty receipts. In most of these cases, undoubtedly, ordinary income was in fact reported by the transferor for a number of years before some tax-oriented attorney took hold of the matter and decided the particular arrangement had capital gains possibilities.

This was our experience in the *C. A. Norgren Co.* case decided by the District Court for the District of Colorado in May of 1967. Incidentally, although this has been a reported decision for over two years and has been cited in subsequent litigation, it is apparently still subject to appeal by the Government and may, in fact, be appealed. The reason for this strange state of affairs is that the patent royalties issue was decided for the taxpayer on a motion for summary judgment. There are other issues in the tax controversy for the years in question that have not yet been resolved and, consequently, an appeal probably still lies.

I would, nevertheless, like to discuss this case with you in some detail because it illustrates many of the points I have been noting and, perhaps more importantly, represents an approach to the resolution of this issue of capital gains for a patent transfer that may simplify and expedite future litigation of the issue—the summary judgment route.

In 1949 and 1950, the C. A. Norgren Co., a manufacturer of pneumatic accessories used in industry, entered into substantially identical agreements with manufacturing companies in England and Sweden, respectively, granting the foreign entities the "exclusive right and license to manufacture and sell:" (A) all Norgren devices, whether now or hereafter patented; and (B) all Norgren devices not covered by patents, whether now or hereafter developed by licensor,"

in certain defined geographic areas. The agreement further provided for the "licensee" to pay a percentage "royalty" to the "licensor" measured by the "net sales price of all Norgren devices manufactured by it," whether patented or unpatented. The agreements were stated to be for a term of 15 years, or for the last to expire of any of the licensor's English (or Swedish) patents, whichever is longer.

Notwithstanding some obvious problems inherent in the agreement (drafted by the company's then attorneys who were apparently oblivious to the captial gains possibilities) and notwithstanding the fact that the company had been faithfully reporting the royalty proceeds of both contracts as ordinary income for more than 15 years, we came to the conclusion in 1964 that, by sheer fortuitousness, the contracts were probably susceptible to a successful contention that the "royalties" were taxable as capital gains. With the backing of management, we filed a claim for refund for all open years (fiscal 1961, 1962, and 1963).

In perhaps typical and predictable fashion, our audacious action in filing the refund claims precipitated a year-long audit of the company following which the Revenue Agent proposed deficiencies for the three years in question plus the following year (1964) in an amount many times our claim for refund and involving some fourteen separate issues. Now management's mettle was severely tested, and I and my associates were not looking too heroic for having gotten the company into the mess! Fortunately (and as we suspected would be the case) management did not cave in.

While the audit was still in process and after our refund claims had been on file the requisite six months, we filed suit for refund in the District Court for the years 1961, 1962, and 1963.

Before answering, the Treasury sent a statutory notice of deficiency to the taxpayer covering the years 1961, 1962, 1963 and 1964. Under Section 7422(e) of the Internal Revenue Code, this action stayed further proceedings in the district court case for 90 days (the period in which a petition in the tax court could have been brought by the taxpayer) and for 60 days thereafter.

During such time, the taxpayer is given the option of transferring jurisdiction of the matter to the tax court by filing a petition to that court. If the taxpayer does not so petition the tax court, the government may (but apparently does not have to) counterclaim for its alleged deficiency in the district court.

Going to the tax court had no appeal for us. We did have the practical problem of what to do about 1964, however, inasmuch as we

had not filed a claim for that year and were now confronted with a substantial deficiency. We also had the problem, with no clear answer, as to what would happen if the government saw fit not to counterclaim in the district court action. We resolved this problem, by agreement with the government, by paying the deficiency for 1964, filing a claim for refund (which was immediately disallowed) and amending our complaint to include all four years. The government then counterclaimed for the first three years and the issue was joined for all four years on all issues in the district court.

While the case stood in this posture and seemed destined for long periods of delay, we came to the conclusion that the patent transfer—capital gains issue, at least concerning whether the agreements were productive of capital gains in any amount, was susceptible to a decision on the law in a motion for summary judgment. It was our contention that no clear issue of fact was presented and that the "law" governing the disposition of this issue could be found in the language of the patent transfer agreement itself, as interpreted against the vast body of law previously developed by the cases. We conceded the possibility, in the light of the *Armco Steel* decision which had just been handed down in a district court in Ohio, that there might be a fact question as to whether some part of the proceeds under the contract constituted compensation for services and, hence, ordinary income. In *Armco,* the court had found that some amount of capital gain existed under the subject agreements but left to a second trial (later settled) the portion of the total proceeds, if any, that constituted compensation for services.

Subsequent to an oral argument on the motion (confined to the English agreement) and prior to the court's decision, the parties, at the instance of the government, took depositions of particular officers of the taxpayer, took further depositions in England of officers of the transferee corporation, and introduced a number of documents as exhibits to depositions and affidavits. Numerous requests for admission were submitted by both sides and a number of facts were stipulated in a pre-trial order. Extensive, supplemental memoranda, commenting on the factual material presented, were filed on both sides.

The government's position, of course, was that the issue was a fact issue and could not be resolved in a summary proceeding. The taxpayer's position was that the issue was one of law exclusively.

In due course the court rendered its decision granting the taxpayer's motion on the capital gains issue. As in the *Armco* case, it confined its decision to the question whether, as a matter of law, the English agreement was productive of payments to the taxpayer in any amount

taxable as capital gains. It reserved for a later factual presentation the question whether some part of the proceeds constituted ordinary income related to the rendering of services.

In making its finding the court said: "Although the government repeatedly urges that there are numerous issues of fact which cannot be resolved upon a summary judgment motion, they have not really presented any, other than the one concerning allocation. . . ."

The court also had to be willing to find, as other courts before it had (notwithstanding strong arguments of government counsel), that:

(1) The use of terms such as "licensor," "licensee," and "royalty" in the agreement did not prevent the existence of a sale of a capital asset or a Section 1231 asset.

(2) Failure of the existence of the word "use" in the granting clause of the agreement (referring to the allegedly magic words "make, use, and sell") did not prevent a transfer of all substantial rights.

(3) Failure of an express right in the tranferee to further assign the rights conveyed under the agreement did not affect the outcome.

(4) The arguable fact that the taxpayer had granted the exclusive right to manufacture to one English company and the exclusive right to sell to another, related, English company, was not important. The court said that the important question was not what rights one of the English companies received, but what rights were *relinquished* by the taxpayer.

(5) The fact that the transferor reserved the right to grant non-exclusive selling rights to third parties within the transferee's territory under certain highly restricted conditions did not prevent the conclusion that the transferor had parted with all substantial rights.

Furthermore, implicit in the court's decision is its concurrence with the taxpayer's contentions that the agreement, being for the life of the last-to-expire of the taxpayer's English patents, was, in fact, a continuous sale for an indefinite period of patent rights, so long as new patents were forthcoming, and that the purchase price could be measured by the proceeds of the sale of unpatented products as well as patented products.

The single most important conclusion from the *Norgren* case, however (assuming it survives a possible appeal, as I am confident it will), is the recognition by the court, I think for the first time, that the law surrounding the issue of capital gains in patent transfer matters is now so clear that a particular agreement can be examined against this law and a decision made in a summary type proceeding as to whether

or not the agreement constitutes the sale of patent rights or the mere grant of a license. The agreement will speak for itself unless the government can show that the parties to the agreement conducted themselves in some other manner. The implications regarding savings in time and expense in handling a litigated matter through the summary judgment route should be self-evident.

## III

As I have intimated, an entirely different kind of tax problem has arisen to plague the sale of a patent where the sale proceeds are paid to the seller over a period of time, such as the life of the patent.

In 1964, Section 483, dealing with imputed interest, was added to the Internal Revenue Code. Subsection (d) of Section 483 makes the imputed interest rule applicable to payments from a buyer to a seller that are indefinite as to time, liability, or amount. This would literally seem to catch payments of the type we have been discussing.

Strangely, the regulations do not give such an example, although numerous examples illustrating the operation of the imputed interest rule are included in the regulations. Furthermore, Subsection (f) (4) of Section 483 expressly excludes sales or exchanges of patents described in Section 1235 (sales by individuals) from the application of 483. Nevertheless, a number of commentators have concluded that Section 483 does apply to sales of patents by corporations and other non-individuals where the agreement is subsequent to 1964, since Section 1235 applies exclusively to sales by individuals.

If those conclusions are correct, the tax result is extremely harsh and discriminatory with regard to corporate sellers of patents and other intangible industrial property.

For example, if Corporation X transfers patent rights to Exploiter Y under circumstances qualifying the transaction as a sale of a capital asset or of Section 1231 property, with the sales proceeds to consist of "royalties" of 3 percent of the sales of products manufactured and sold by Y, and if the payments from Y to X in the first, tenth and seventeenth years of the life of the patent total $100,000 in each case, the tax treatment to X for those particular years, under the Commissioner's present regulations which specify a 5 percent interest rate compounded semi-annually where no actual interest rate is stated, is as follows:

Of the $100,000 proceeds in the first year, $95,181 will be treated as capital gains and $4,819 as ordinary income; of the $100,000 proceeds in the tenth year, $61,027 will be capital gains and $38,973 ordinary

income; of the $100,000 proceeds in the seventeenth year, only $43,191 will be capital gains and the remaining $56,809 treated as ordinary income.

It is immediately apparent that the economics of the transaction is completely distorted by the application of Section 483. Furthermore, the seller of a patent cannot protect itself because there is no realistic way it can avoid the application of 483 (as other sellers can) by building actual interest into the agreement. Y will certainly not be amenable to adding 17 years of cumulative interest (back to the original sale date) to royalties payable by it in the seventeenth year of exploitation.

I have recently brought this inequity to the attention of the members of the Joint Committee of Congress on Internal Revenue Taxation and to the Chairman of the Tax Committee of the National Association of Manufacturers in hope that favorable clarifying legislation may be added to the new Revenue Bill now in preparation.

Since the application of Section 483 to patent sales effectively emasculates the capital gains benefit the tax law is otherwise prepared to accord, I would hope that you gentlemen will lend your support at this time to remedial legislation.

Thank you very much. (Applause)

MODERATOR RAHL: Thank you very much, Mr. Meyer.

I suppose, as is often the case, what is a tax advantage may have to be looked at to see whether it is an antitrust disadvantage, and I just raise the question of whether or not working hard to convert a transaction into what amounts to an assignment, as distinguished from a license, might enhance difficulties under Section 7 of the Clayton Act, making it a bit more of an acquisition, perhaps, for purposes of that statute than an ordinary license would be, although I hasten to add there is really very little law on that subject—certainly not enough to cause people to give up clear tax advantages at this point.

I am very happy to introduce now Mr. John F. Creed, a partner in Baker and MacKenzie in their New York office, a graduate of the U.S. Military Academy, and then claimed by the legal profession through law study at Georgetown University.

He has written a great deal, and Mr. Meyer has already mentioned one of his writings; for the past 11 years he also has been affiliated with The PTC Research Institute.

I am glad to introduce Mr. Creed. (Applause)

Thank you very much.

I was interested in your comments, Professor.

There was a recent case, the *Du Pont* case, in a district court, that you may be familiar with. One of the aspects of it was a retention by the transferor of the right to export. The right was retained in order to satisfy an antitrust decree.

The court smoothed over this feature in handling a number of difficulties en masse and reached a favorable result for the taxpayer. The government opposed the taxpayer's position that an antitrust decree is adequate reason to withhold exclusive rights to sell without thereby jeopardizing capital gains.

Now, Mr. Meyer has covered very capably the romantic subject of capital gains. I plan to survey a more mundane area, but one that may be equally important. I refer to the depreciation of industrial property rights and similar intangible property.

The statutory section involved is Section 167 of the Internal Revenue Code. It grants as a deduction from gross income a reasonable allowance for the exhaustion, wear and tear, and obsolescence of property used in the trade or business or for the production of income. Needless to say, the section applies to both tangible and intangible properties. There are two difficult areas as to tangible property. One is that of establishing the cost of the property. The typical situation might be one corporation acquiring all the assets of another corporation. There would be an allocation of the total purchase price to the various assets. The government, of course, is interested in a maximum allocation to nondepreciable assets, such as good will, know-how and trademarks. The taxpayer, naturally, would like to allocate to depreciable assets, especially those of short life. This problem, while difficult, is one of fact and can be resolved.

The second problem involving tangible property is that of ascertaining the useful life over which depreciation can be taken. The guidelines on useful life have helped, but in any event this problem too is ascertainable, since it is one of fact.

On the other hand, with intangible property much more difficult problems are involved from the taxpayer's standpoint. There are two basic situations: In the first the payment for the intangible property, such as patents, is made periodically and usually fixed as a percentage of production, sales, use or profit. In the second situation, the intangi-

ble asset has an unascertainable life, that is, one of indefinite duration. Unpatented inventions are one example, others are secret processes and formulae, trademarks and patent applications.

Covering first the matter of periodic payments, which Mr. Meyer has referred to as "royalty" type payments. I am on the other side of the matter. The question is whether the buyer of the patent or like property can deduct on a current basis the periodic payment paid to the seller? The Tax Court has spoken on this several times. The most celebrated case is the *Associated Patentees* case, decided in 1949, and ten years later acquiesced in by the Revenue Service. It involved these rather basic facts. The taxpayer acquired several patents from four individuals under a contract requiring the taxpayer to pay to the sellers 80 percent of its annual income from sub-licenses granted to others to practice the patents.

The Commissioner took the position that only a proportionate share of the amount paid each year should be allowed as depreciation and the remainder should be capitalized. The effect of this would be to bunch the deductions in the latter years and to make them sparse in the earlier years. For example, as to a patent with ten years' remaining life payment received in the first year would be spread over ten years, the second over nine, the third over eight, and so forth, with an unrealistic build-up of deduction in the later years.

The Tax Court held against the Commissioner on the grounds that the payments were related directly to the business of the year for which they are paid and they were, in fact, the best possible measure of current deductions. They were a "reasonable allowance" and nothing more.

Another important case is *John A. Nelson Co.,* in the Tax Court, and there are others.

I want you to keep in mind that this holding is limited to situations where the payments are coterminous with the use of the patent or other industrial property. For example, if A sells to B a patent with ten years of remaining life and agrees to take 5 percent per year on sales over the first five years, those payments must be capitalized. The reason is very simple. When the basis for payments and the use are not coextensive, it cannot be said that the payments received, for example, in the first year relate solely to the use in the first year, and the rationale of *Associated Patentees* cannot be applied. When we get into the area of know-how or like property, we see that this situation is happening more often.

There is a rather interesting commentary on this. The government

had no success in arguing its position that contingent payments based on use, sales or production should be capitalized. The Internal Revenue Service was also taking the position for a number of years that the recipient of such payments, in other words the seller of a patent, should not obtain capital gains because he had retained an interest in the patent. So the IRS tried to balance those two propositions, on one hand urging capitalization on the amount paid by the "buyer" and on the other arguing ordinary income treatment to the transferor on the grounds that the transfer was a mere license. It is known as "playing both sides of the street" and it is a game at which the Revenue Service is frequently most adroit.

We turn to the second area of difficulty with regard to depreciation of intangible property, which involves properties of indefinite duration such as know-how, trademarks, patent applications, and good will.

Under Regulation §1.167 (a) -3, no depreciation will be allowed for intangible assets unless the taxpayer can demonstrate that the assets have a useful life that can be estimated with reasonable accuracy. Now, if he can't so estimate, before the taxpayer gets a deduction he has to abandon the industrial property right, which in some cases may run into two or three centuries. As a general proposition I think the theory is sound. You have to have a useful life, normally, or what are you going to divide the total price by? What number of years?

I am speaking in the context of present law. I am not speaking equitably. I would go to a more equitable basis for doing this somewhat later. The regulation seems to me to be invalid where the purchase price consists of continuing payments based on production, sale or use, and paid over the life of the property. I want to emphasize the life of the property. Again, the payments must be coterminous with the use. That is to say, if know-how is licensed perpetually, it is no good to take back a 5 percent royalty for the first 20 years unless you can demonstrate somehow that the know-how will have that duration, which is rather difficult.

There have been a limited number of cases on this question. Until recently all the authority favored the interpretation that I have just given, that is, that annual payments based on use, et cetera, and extending over the full use of the asset, should be deductible by the payor.

One case supporting this theory is the *Cunningham* case, which was a Tax Court memorandum decision in 1951. The inventor in that case sold unpatented inventions for 5 percent of the sales of all products manufactured with the inventions. The Commissioner said the taxpay-

er must treat the payments as nondeductible expenditures. The Tax Court disagreed with the Commissioner and held the payments deductible under the principle of the *Associated Patentees* case. The payments were found to reflect the actual yearly cost to the corporation for the use of the inventions. Similar results were reached by the Tax Court in *Century Tank Corporation* in a 1959 memorandum decision, and in *Seattle Brewing & Malting Company,* 1946, dealing with trademarks.

I might mention that the *Century Tank* case dealt with patent applications. Once the patents issued the question was gone, assuming that the payments extended over the full lives of the patents.

Again, payments must be coterminous with use. The practice so frequently calls, for example, for 20-year payments, even though use by the transferee is indefinite or perpetual. We go to some great lengths to get a perpetual payout arrangement. The 10- or 20-year payout does not create a basis for current deductibility.

As noted earlier, most of the cases in this area are favorable, to my knowledge all of them save one, and that discordant note was struck in *Dunn* v. *United States,* decided in 1966 by the Western District Court of Oklahoma and affirmed on appeal by the 10th Circuit in 1968. The facts were these: The taxpayer corporation acquired two Dairy Queen franchises in Oklahoma for which it agreed to pay to the state franchise holder 28 cents for each gallon of mix used in making products under the name Dairy Queen. Now, prior law had established that the transfer of a franchise amounted to the sale of a capital asset. The sole question was whether the corporation could deduct its payments as depreciation of a capital asset.

Citing the Commissioner's regulations, the court held that no deduction was allowable. Quite candidly, the court based its decision on a number of cases that seem wholly off the mark. The court failed to mention the Tax Court precedents—*Cunningham, Century Tank, Seattle Brewing*—that we have discussed.

The economic implications of the *Dunn* case could be disastrous. If the holding in that case prevails—and it is my expectation that it will not—then the only recourse may be legislative. It might be advisable, it seems to me, if Congressional action were to cover a broad range of intangible assets that under present law cannot be depreciated because of their indefinite duration. I have in mind patent applications, inventions, secret processes, formulae, trademarks, trade names and business assets such as good will.

In the case of good will, consider the typical case of a corporation

that takes over all the assets of another business and is required to assign one million dollars to acquired good will. For tax purposes the asset cannot be depreciated. Yet, in reporting to its shareholders, the corporation is required to write down the asset, usually from year to year. It is difficult to reconcile these results.

With legislation along the lines I am suggesting, we might have some salutary side effects. It might even encourage the business community to think that occasionally, at least, tax reform is a two-way street.

Thank you very much. (Applause)

## Part D—Private and Public Roles in International Transactions

MODERATOR RAHL: I should retract a part of my observations—at least that the rule that the payment must be coterminous seems to coincide with the patent misuse doctrine that you shouldn't charge royalties beyond the life of the patent.

We are going to turn to international transactions, and before we do that I would like to ask that, as was done yesterday, you prepare such questions as you may have in writing. They will be collected later when the question and answer period begins at the close of the particular group of talks on international transactions. Please indicate the person to whom you wish to have the question addressed and please make it as short as possible.

In the international area I notice that we have scheduled on the program the topic "Private and Public Roles in International Transactions," which comports with the general heading of the program, "Government—Private Issues."

The intimation may be that private approaches to international transactions don't always take quite the same approach that public approaches take. We have both public and private people on the program to discuss this and I am looking forward very much to seeing what the issues are. In any case, our first speaker is not a man who has undertaken to interfere with the flow of private and international transactions in industrial property. On the contrary, he has devoted

more than 25 years to improving the foreign trade of the United States and to helping develop close working relations between government and business.

I am referring to Mr. Eugene M. Braderman, presently Deputy Assistant Secretary for Commercial Affairs and Business Activities in the Department of State.

He came to State, I understand, about four years ago from the Commerce Department, where he was Deputy Assistant Secretary for International Commerce and Director of the Bureau of International Commerce, in which capacity he was responsible for promoting foreign trade.

Presently at State he is concerned with international business practices, with international aspects of industrial property rights directly, and other problems.

He has been with the United States government since 1939 in the capacities that I have mentioned, and represented the United States at numerous international conferences, including GATT, OECD, the Convention of Paris for the Protection of Industrial Property, and the Intellectual Property Conference of Stockholm.

Recently he headed the team to conduct discussions with the Philippines on future economic relations with that country.

I could tell you about his education but you can infer that he has a great deal of it, both formal and practical, and it is a pleasure to introduce Mr. Braderman.

## Some Issues in the International Transfer of Technical Knowledge

EUGENE M. BRADERMAN

Thank you very, very much.

Mr. Chairman, Fellow Panelists and Ladies and Gentlemen:

Your Chairman indicated that in our discussion of this topic we should consider not only the question of private and public roles in international transactions but also some of the issues, and, following the program for this Conference, it should be done within the context

of our general theme—"Technical Knowledge: Its Protection, Use and Flow."

What I would like to do this morning is to discuss with you some issues concerning international transfer of technical knowledge.

Can anyone here deny that these are revolutionary times? The developed nations affirm the equality and dignity of man and have demonstrated his vast productive resources and inventive capacity. The disadvantaged and ignored, at home and abroad, are now demanding to catch up with what has been said and done.

International access to technical knowledge is a revolutionary issue, most often directed at the United States as the country in the forefront of social, economic, and technical change.

A couple of years ago the developed countries of Europe were prone to blame us for the so-called "technological gap." Since then, they have generally come to recognize that the term was in large measure a slogan—that European deficiencies were due to other factors such as less efficient management techniques and failure to make good education widely available. Europe has access to most advanced technology. Indeed, its inventions have been impressive. Important early work on the computer was done in the United Kingdom, France and Germany, for example. But Europe has not fully exploited what it has in hand.

The problem is of altogether another magnitude in the developing countries. Between them and the industrial nations the technological disparity is truly immeasurable. Usually they lack the management skills and all else needed to make use of new technology. But the developing countries tend to blame the developed countries—often the United States—for holding technology close, even for restricting its transfer, and to ask for it on concessional terms.

Many factors determine whether or not technical knowledge flows easily from one country to another and soaks in: the availability of managerial ability and technical skills, certainly—and an educated and adaptable labor force. Other factors include the suitability of a particular technology to the needs of a country; the existence of the roads, distribution systems, power plants, and other basic structures to make it work; and the welcome the country offers to foreign direct investors. Controls over foreign direct investment by countries able to export technology may also affect the pace of transfer.

We must include among these factors the adequacy of laws in the country receiving technology to protect ownership rights to intellectual property and the adequacy of laws in both the receiving and transferring countries to prevent anticompetitive business practices.

Let us consider for a moment a mini-catalog of some of the ways by which United States citizens and firms can export technology:

—by establishing subsidiaries abroad employing and training foreign engineers, technicians, managers, and workers;
—by establishing joint ventures with foreign firms;
—by co-production agreements, under which the foreign firm may supply the machinery and technology but without equity interest, and is paid in goods produced;
—by licensing foreign firms to produce products of American invention;
—by selling technology to foreign manufacturers;
—by selling or otherwise transferring goods and equipment abroad;
—by publishing technical information in professional and scientific journals.

The list clearly suggests that the effective protection of patents, copyrights, trademarks, and unpatented know-how is important to technology transfer. Owners of intellectual property will let others use their inventions more readily in places where property rights receive strong legal protection than in places where they do not.

## International Patent Policy

Patents, obviously, contribute significantly to the transfer of technical knowledge. They induce inventors to disclose their discoveries instead of keeping them as trade secrets. They promote economic development by providing an incentive for the investment of capital in new lines of production.

On occasion, however, licensing conditions may limit the benefits of transfer. A patent holder may require licensees to grant back to him all future patents or inventions they develop related to his licensed technology. He may limit the use of the article or the quantity that can be made or sold under license. He may limit its price or resale price, restrict its channels of distribution, name the sole countries to which it can be exported. He may limit the duration of the license and block the use of competing products and technology. He may impose tying clauses requiring licensees to purchase materials from him only, or from places designated by him, or force them to take licenses from him on other patents. Not all of these limitations are illegal in the United States or elsewhere.

A government may even restrict the importation of patented technol-

ogy. Some limit foreign remittances or place ceilings on royalty rates to foreign licensors. A French law, effective in 1967, requires the Minister of Industry to authorize every license agreement calling for transfer from abroad of scientific or technical knowledge to a French person or entity. In making his determination, the Minister inquires whether the importer has considered available French technology. Other governments, too, selectively authorize licensing agreements.

Let me state quite frankly that I am not convinced that these practices have very much consequence on the transfer of technology when measured against the wide availability of patent licenses. They are anticompetitive, however, and contrary to optimal allocation of resources.

The present shortcomings of the international patent filing system have an inhibiting effect on the flow of technology.

Presently, an inventor must file applications for patents on the same invention in several countries in accordance with their diverse laws and regulations. The cost to applicants of redundant filing fees, translations, and agents' fees and the cost of the time consumed are unnecessarily burdensome. The workload imposed on some examining patent offices is almost overwhelming. The United States hopes this situation will be greatly alleviated through international patent cooperation.

The foremost example to date of broad-scale international cooperation in the patent field is the result of an American initiative—I refer to the proposed Patent Cooperation Treaty. This Treaty is being developed by member states of the Paris Union, under the aegis of the Secretariat of the Paris Convention.

The Treaty is designed to reduce multiple filing and processing. It would permit a single filing of an international application prepared according to a uniform format, eliminating separate filings under different procedures in each member country. An applicant could request one of four national patent offices, including the United States Patent Office, if he is an American or U.S. resident, or the International Patent Institute at The Hague, to prepare an international search report to help evaluate the novelty of his invention. He could defer filing translations and paying national fees until he has received the search report. If he decides on the basis of the search report not to proceed nationally, then he has saved the various costs of filing in other countries. If he decides to have his application processed, he will have gained valuable time to assess the commercial feasibility of his invention. The Treaty would also provide for an optional internation-

al preliminary examination report which would further help the applicant to make up his mind whether it is worthwhile to continue his efforts to obtain patents in other countries.

The benefit of the Patent Cooperation Treaty to patent offices will probably vary from country to country depending upon the extent to which a particular office wishes to accept the search report or the international preliminary examination report.

Both developing and developed countries would benefit from the PCT system. It would provide meaningful protection for investors and businessmen as well as inventors. The PCT route, incidentally, would not be compulsory for filings abroad. If an applicant chose to file patent applications country-by-country, as now, he would be perfectly free to do so. The decision to issue patents would continue to be made by national patent offices under national laws. The system therefore preserves national sovereignty.

A diplomatic conference to negotiate the PCT is now planned for the spring of 1970. The Senate Foreign Relations Committee recently held hearings on Senate Joint Resolution 90, which would authorize the Conference to be held in the United States, subject to appropriations.

If the PCT is successfully negotiated, it could be a most significant first step toward further international cooperation.

## International Policy on Copyrights

Let me say a few words about copyrights—few because, in all truth, technology is transferred far less through publications than through licenses and their accompanying arrangements. But there are problems here that merit wider attention.

The international copyright field is distinguished by its confusion. The United States belongs to the Universal Copyright Convention, signed in 1952. The older convention is the Berne Copyright Convention signed in 1886. The U.S. is not a member. Many states adhere to both. Article 17 of the UCC, the so-called "Berne Safeguard Clause," prohibits countries that are members of the Berne Convention from withdrawing from it to rely on the Universal Copyright Convention.

In 1967, the Berne Convention was revised at Stockholm to lower the level of the obligations of the developing member countries to protect copyrights. Developed countries, including the United States, have opposed the Stockholm Protocol.

Believing that the Protocol may not be adopted, some developing

countries now propose it be abandoned and the Berne Safeguard Clause changed instead to permit them to leave the Berne Union and to observe the lower level order of protection of the UCC.

At the suggestion of the United States, a Joint Study Group representing both Conventions has been set up to examine the problem. It will hold its first meeting in Washington early this fall. Facing the Joint Study Group are the tasks of considering the basic conflict between

—the needs of the developing countries for copyrighted educational materials versus protection of the property rights of developed countries;

—problems arising from the existence of two copyright conventions of worldwide scope and the development of new rationalizing links between them.

At sometime in the future, we are clearly going to have to consider the possibility of creating an entirely new international copyright convention to replace the two now existing.

## New Treaties in the Field of Intellectual Property

President Nixon recently submitted to the Senate, for its advice and consent to ratification, two treaties that will modernize administration of international agreements in the field of intellectual property.

The Convention Establishing a World Intellectual Property Organization, signed at Stockholm in 1967, will coordinate administration of the Paris Industrial Property Convention and certain other industrial property conventions, and the Berne Copyright Convention. Countries that are members of neither the Paris nor Berne Conventions may adhere to the WIPO Convention. The WIPO Convention therefore will provide an extended world forum for the advancement of intellectual property protection.

A separate but related treaty provides for updated administration of the Paris Convention and of its Secretariat, the United International Bureaus for the Protection of Industrial Property (BIRPI). The primary administrative change in the Paris Convention will be to give member states the powers of policymaking and control that they usually have in intergovernmental organizations. (Until now, the Swiss Government has been the supervising authority.) This modernization of the administrative structure of the Paris Convention will make it a more efficient instrument and thus promote the protection of industrial property.

The revision of the Paris Convention will also allow applications for inventors' certificates, issued by most Eastern European countries, to enjoy the right of priority presently accorded to patent applications. If the United States approves the revision, we feel that it will provide another indication of our willingness to cooperate with all member states of the Paris Convention in attempting to find solutions to common patent problems.

Technology transfer as an issue is not going to fade away. I believe all of you should be aware that the question is being debated and discussed in a wide variety of international fora. These include many United Nations conferences and committees, particularly the UN Conference on Trade and Development (UNCTAD), the UN Industrial Development Organization (UNIDO), the UN Development Program, and the various UN regional commissions. Problems of technological transfer have been raised in the Organization of American States and, in fact, we may be discussing the relation of patents and licensing to transfer at the meeting of the Inter-American Economic and Social Council at Port-of-Spain in the middle of this month. Various aspects of the problem are also being considered in the Organization for Economic Cooperation and Development (OECD).

But, whatever the forum or the specific issues, we must not forget that what we are talking about is private property. The decision to transfer technology is made by its owner. The efforts I have listed are merely intended to create the attractive business conditions that will make him willing to let others use what he has developed.

In conclusion, let us consider for a moment the magnitude of private international business that might be expected to involve intellectual property rights.

Last year, the aggregate gross national product of all free-world countries was about $1,800 billion, half of it produced by this country. It has been roughly figured that about $500 billion, or 28 percent, of the total free-world GNP is associated with investment in foreign manufacturing facilities. I am speaking of all foreign investment, not merely investment by the United States.

The American share of this activity is impressive. The book value of our foreign direct investment was $64 billion in 1968. The production resulting from this and other U.S. long-term private foreign investment has been estimated at about $200 billion last year, or about 11 percent of free-world GNP.

We must not overlook trade as an instrument of transfer. The trade turnover of the free-world countries amounted to almost $400 billion

in 1968. The two-way trade of the United States made up 17 percent of the total.

Despite the outcries against "the establishment," plainly private business, and particularly American business, is carrying new technology all over the world. Trade and investment in search of profit are a powerful revolutionary force. They are creating new multinational entities with headquarters in one country and operations in others. They are developing new and flexible types of commercial arrangements for the transfer of technology all over the globe, such as management and turnkey contracts.

In a world that supersonic planes will soon cross in a few hours and that moon voyagers have discovered to be a solitary island, the future internationalization of the world economy is not an unlikely concept. National laws affecting foreign investment will eventually be harmonized and basic international principles accepted. Regional arrangements are already questioning certain attributes of national sovereignty. New concepts of the relations between home and host governments and multinational corporations demand to be worked out.

We in the Department of State are thinking about what suggestions we can make, not only to protect American trade and investment abroad, but to provide a framework in which investment can prosper and grow, for the benefit of both the investor and the home country. We are at the very initial stage of thinking about the development of possible principles that might be subscribed to by developed and developing countries regarding their treatment of foreign direct investment. These principles must, of course, further the use and transfer of technical information, protect intellectual property rights, and prohibit anticompetitive business practices.

We would welcome ideas from all of you in forecasting the course of change and in developing the structures to meet future needs.

Thank you very much. (Applause)

MODERATOR RAHL: Thank you, Mr. Braderman, for that very comprehensive insight into international problems from a key government man's point of view.

I was interested in your findings that apparently problems of restrictive practices are of both government and private origin abroad. Although there are apparently a good many of them, they do not seem to interfere substantially with the technical flow of information from the United States.

I have been involved in some research on the other side of that coin. That is the question of the extent to which antitrust laws, as is sometimes urged, interfere with that flow.

Does the lessened ability of the American licensor to use restrictive practices abroad, sometimes limited by American law, inhibit his ability to pursue transactions profitably in this area? My own research so far, which has been somewhat empirical, has yielded quite a few generalizations to the effect that there is a strong belief that there is serious interference, but very few concrete examples which bear it out.

I throw that point out to you out of selfish interest in case somebody will give me a few examples. I am sure there are people here today who could, if they will, and if such examples are available.

Now, turning to the private sector, I am going to introduce a man who was introduced to you yesterday and who very modestly has said, "Please don't go through all of that again," and I won't. But I must say that he, too, has had a great deal to do with the flow of technology both to and from the United States.

Mr. John Green, at the end of World War II, was put in charge of the transfer of science and technology from the Axis nations into the United States. Later he developed programs for the government to make available its research findings to industry, and currently he is President of John C. Green and Associates.

Mr. Green. (Applause)

## JOHN C. GREEN

When I began to prepare this presentation I found that the title, "Private and Public Roles in International Transactions," posed a problem. I knew that Eugène Braderman would ably describe the efforts of the U. S. government, and that Gerry Weiser would discuss with precision concerns of the private sector. Thus, I have chosen to talk about an intermediate sector—the roles of "governments" in general, plus those international organizations which are usually blessed, and financed, by governments.

First, let us consider international organizations with an interest in industrial property. (There are a substantial number of them, and I

won't endeavor to make a complete inventory.) Perhaps foremost is the United Nations which, through its specialized agencies, is interested in economic development and advanced living standards around the world. It is an article of faith in the United Nations and elsewhere that the transition from unsophisticated agrarian societies to desirable technological levels must be accelerated in order to provide jobs and a better life for the increasing populations that are the result of better sanitation, medical care and food supplies.

The UN has a Department of Economic and Social Affairs which endeavors to assess the contribution of proprietary information to the member nations. Also, it supports the United Nations Conference on Trade and Development which provides the several countries with a platform for discussion of problems and consideration of recommendations for enlightened economic policies.

It has another unit called the United Nations Educational, Scientific and Cultural Organization (UNESCO) which strives to "educate" and "inform" with a view to creating adequate numbers of people to become the leaders, teachers, scientists and engineers that these societies will require if they are to advance from their current economic levels to those more akin to their aspirations.

Next, the UN has a relatively young element, the United Nations Industrial Development Organization, located in Vienna. This organization has the direct target of encouraging appropriate industry in the developing countries. It is too early to predict the full scope and thrust of UNIDO, but they seem to be applying their resources to identifying favorable industrial opportunities, locating a combination of competence, capital and interest, within or outside the country concerned, then acting as a "catalyst" to assist new industrial efforts.

Staff personnel at UNIDO are aware of the many complex problems involved in establishing new industries, including those of devising or improving systems for the protection of industrial property. However, this awareness has not been matched by most policy and/or planning officials in developing nations.

Another important international agency, the Organization of American States (OAS), has its headquarters in this city. They have similar general objectives to those of the United Nations; however, they look south of our border at Central and South America. OAS technical efforts received a "shot in the arm" when President Johnson at Punta del Esta announced that it was U.S. policy to share our technological achievements with our Latin American neighbors. At this moment the OAS, with a special infusion of funds, is beginning a responsive

program which includes scientific and engineering education, cooperative research between nations and better diffusion of scientific and technical information. I can report that, like their counterparts in UNIDO, OAS officials located in this city recognize the need for protection of industrial property as an essential ingredient of international trade.

The Organization for European Cooperation and Development (OECD) plays a slightly different role. They work toward the introduction of wise economic policies by the several European governments. In order to achieve this objective they undertake a series of economic studies ranging from science policy to production statistics. They undertake these studies to "educate" policy officials in the member nations in methods employed by other countries, and the economic impacts of national attitudes and programs. To date they have given little attention to industrial property problems, perhaps because all of their constituents have long-established systems. On the other hand, a series of studies of the growth and success of technologically advanced industries in the United States, in Europe and in Japan give a great deal of attention to the transfer of technology through commercial channels. In general, OECD study teams found that the effects of such transfers are favorable to all parties in the transactions. Thus, as a matter of policy, they advise their members against taking steps which would impede this flow whether by licensing, by direct investment abroad, or even by the emigration of skilled manpower—sometimes called the "brain drain."

The World Bank deserves mention in any inventory of international organizations concerned with industrial development. As bankers, they precede their financial investments by careful studies of the economics concerned in order to judge the wisdom and chances of success of the ventures they have under consideration. However, I don't know of any special concern expressed at the Bank for the problems of technological transfers.

In addition to those four major organizations, there are several regional groups, and of course, the United International Bureaux for the Protection of Intellectual Property (BIRPI), plus the proposed mechanism of the World Industrial Property Organization. BIRPI is long-established and well-organized, and Gene Braderman has advised you of WIPO's status today. Therefore, let me limit my further observations to organizations of the UNESCO, UNIDO and the OAS type.

It happens that I serve as consultant to all three, and I express no

lack of confidence in them when I say that their efforts in introducing new industries do not, and cannot, approach those of international business firms. The business community alone has the combination of technology, management skills, funds and entrepreneurship required for that assignment. Where international organizations are most useful is in exchanges of experience, training programs, identifying opportunities and working toward a favorable investment climate. In this last area insufficient attention has been paid to overcoming opposition within the developing countries to creating, or improving, systems for the protection of industrial property.

This comment leads to consideration of what governments, as distinguished from international organizations, do to encourage the transfer of innovations abroad as a part of international commercial transactions.

The U.S. is the accepted leader in introducing new ideas on the market, and our favorable technological balance of payments demonstrates that most firms abroad recognize our position. In this connection, one of the OECD study groups examining the so-called "technological gap" found that 57 percent of all sums paid by firms in the OECD countries for patents, licenses and know-how come to the United States. Numerous reasons for this leadership have been advanced. Much has been said about the spirit of free enterprise, the inventive talents of our people, our large reservoir of scientists and engineers, our enormous production of goods, and our great markets. All of these, and more, in combination constitute a "national climate" favorable to many and continuous innovations which then become the medium for international transactions in technology. The preservation of this "national climate" is of course a major function of the executive, legislative and judicial branches of our government.

This is in fact the reason and justification for government involvement in the Patent Cooperation Treaty, endorsement of WIPO and attention to numerous other agreements, such as the Madrid Arrangement for the protection of trademarks, and the Paris Convention, and the "Common Market" patent.

The next area where governments play a major role is "technical assistance." Several governments provide developing countries with "technical help" in developing local industries. My impression, based on incomplete evidence, is that some European countries combine these endeavors with programs to assist their exports. This has not been true in the United States, where the Agency for International Development in State has been the operating agency.

The Agency for International Development has sought to encourage private enterprise participation in overseas projects in a number of ways—such as information on opportunities and risk guarantees. To date, AID successes in introduction of new industry have been less apparent than its programs directed to improvements in transportation, communications, health, government services and the like.

Recently, President Nixon proposed a major shift in the AID program to accelerate industrial development through increased participation by U. S. firms. Specifically, he intends to set up a private Overseas Investment Corporation to facilitate private venture capital investment in business enterprises of less developed countries. Assuming the Congress accepts the President's concept, it would seem to be in order to advise the planners that a private corporation may do more efficiently what is done now by government and semi-government agencies—that is, identify opportunities, arrange for negotiations, smooth out administrative difficulties, and insure inventors against political risks. However, setting up such a corporation won't create the more attractive climate for risk-taking which private firms find at home and in most industrialized countries. To emphasize this point, let me quote a UNIDO executive, Robert Oshins—"The total net new private investment, in anything but oil, in all of the vast areas of all of the developing countries of Asia and Africa, in recent years has been only about as much as the amount invested in new shopping centers in Fairfax County, Virginia."

In other words, private investment in the developing nations has been minimal. And commercial arrangements for transfer of technology have been even less significant. Large internationally-minded U.S. firms report that they simply have no experience in licensing their patents and know-how in countries which lack a degree of industrialization and a general level of technology comparable to our own. It takes little perception to appreciate this fact since what good is a license in a country which lacks a competent local business community to manufacture, production personnel to make, and a reasonably sized market to absorb? When this is coupled with resistance on the part of policy officials in these nations to paying for information, a bleak picture results. However, a start must be made, and one thing that can be done to encourage the flow of technology to these countries is to urge the establishment, or improvement, of systems for the protection of industrial property.

In this connection let me quote a study of technology transfer in Mexico.

> . . . the debate in Mexico—although presently muted—runs along the following general lines:
>
> (a) The country cannot afford to abandon its objective of rapid absorption of new technology and to use "second hand" technology because of longer-term economic considerations—especially a need to diversify exports;
>
> (b) Mexico cannot for political reasons, permit technological domination from abroad through arrangements tying up new technology to private foreign investments;
>
> (c) On both political and economic grounds, foreign private capital should plan to withdraw gradually, in agreement with the country, from industrial activities in which technology is relatively stable or where there is ready access to untied technology that may require no more than advisory services to the local capital replacing the foreign-controlled investment;
>
> (d) On the same grounds, foreign capital should contribute in areas of dynamic technology to the development of local applied scientific research;
>
> (e) Moreover, the cost of foreign technology to Mexico and other developing countries must be lowered through external financial assistance and general liberalization of conditions under which technical services, licensing and engineering, and construction agreements are negotiated between foreign owners of technology and Mexican private and public enterprises.

It is interesting to note that the author of the study went on to say:

> . . . these complaints, couched in very general terms, are of extremely limited value in the search for new solutions to the existing problem. Moreover, they seem to forget that most tied and untied knowhow is controlled one way or another in the advanced countries by large private corporations and that private receivers of new technology in Mexico itself also insist on exclusive control of acquired know-how.

In December of 1967, I attended a meeting in Athens where UNIDO brought together some 450 policy officials from 65 developing nations. A representative from BIRPI was there who tried, without much success, to introduce a resolution which would recognize that a good industrial property system is a desirable feature of the economy of a country which seeks to attract and develop industry. His listeners were apathetic at best. My inquiries, at that meeting and elsewhere, with respect to the reasons for this negative attitude convinced me that its roots lie in an awareness of the limited managerial, entrepreneurial and inventive resources in these countries, plus a feeling that a patent system provides a sort of "colonialism" designed to make it easy for foreign firms to establish a monopoly position in their economies. The idea of encouraging indigenous invention simply hasn't caught hold. Changing this attitude won't be done quickly or easily, yet it should be attacked hand-in-hand with

President Nixon's newly proposed Overseas Investment Corporation.

Thank you. (Applause)

MODERATOR RAHL: Thank you, Mr. Green, for this very interesting report which, it should be said, represents in part a great deal of research which I understand you have done as an associate of The PTC Research Institute.

It is really quite a remarkable insight into problems of the kind that one gains only from research of this sort.

Concluding this round on "Private and Public Roles in International Transactions," we have Mr. Gerard J. Weiser, partner of McClure, Weiser and Millman, of Philadelphia, who was born in Lucerne, Switzerland, and has devoted a great deal of his work to international areas.

He is a patent lawyer, graduated from Penn State and the University of Pennsylvania, and has participated, as these other gentlemen have, in many conferences, symposiums, and institutes.

He has written a great deal and has, in connection with work for the PTC Institute, published reports and articles.

His main areas of research have been with respect to the European Common Market, in particular in the antitrust and patent licensing area and in the area of joint ventures.

As a member of the staff of the Institute he is carrying on research and lecturing in different areas of the industrial-intellectual property field.

I am glad to introduce Mr. Weiser to you. (Applause)

## GERARD J. WEISER

Thank you, Mr. Chairman.

Russell Baker, who has the talent to tell important things in a light vein, in the *New York Times* tells a story about the American Book Sellers' Association annual meeting which took place at the Shoreham Hotel.

The point of his story is so important and relevant to my statement that I propose to analogize and present my ideas, in part, as an allegory. I think such a symbolical narration will have greater impact and will save much explaining.

A member of the board of directors of a dynamic United States corporation came to the office of TIPATS, Terra Industrial Patent and Trademark Systems, and asked where he could buy a certain document called a patent which is effective, universally enforceable in the United States and abroad, provides reasonable legal certainty and fair protection for his company's financial and technical investment, and which can be licensed at fair royalty rates here and abroad.

The Executive Director of TIPATS told him that he had *just* the thing he needed. It was a patent with a central patent filing cartridge with worldwide automatic filing. A special optional attachment was provided for complete novelty and prior art searching.

The executive asked whether this would really give him effective patent protection and reliable exploitation.

The TIPATS Director brushed the question aside with a sweep of his hand. Another appendage to the filing cartridge, he said, would provide a uniform specification language, drawings and claims. Since this had a centrally positioned formal red label the corporate application could dispense with the formal requirements of ribboning and others.

A special type red tape in color would extend this appendage to affidavits under Rules 131 and 132.

With some timidity the executive stated that a patent counsel in his corporation, a novice, to be sure, had reported some difficulties in interpreting American-English, also French, and German, and United Kingdom-British. He wasn't sure that TIPATS would give his corporation a stronger patent with this uniform language and absence of formalities.

The executive also declared that someone had told him there was some question whether a Declaration could properly be used by a *foreign* inventor; he even understood his corporation to be defending an infringement suit based on some doctrine called misuse, a frontier area, he said, involving misuse in conception. It related to a Declaration subject to Section 1001 of the Code for preparing patent applications. Since it was made by a foreign applicant not subject to its fine and imprisonment provisions, it apparently had created a cloud on the patent. The TIPATS Director brushed these remarks aside. What he needed, he said, was a new harmonized substantive language package, herein referred to as HSL package, which assured harmonious delivery

and publication in all countries in the Common Market in four languages.

The executive, continues the story, hesitatingly inquired whether this would give his corporation a drug patent in Italy, reasonable working provisions in Spain and Argentina, and unity of invention in all other countries, and whether he could license the patent.

The director of TIPATS glowed and said, "You must combine this package with our uniform licensing code tape in 'certain fields of technology' with zero feedback grants and zero explicit restrictions."

Success of the uniform licensing program is assured, he stated, by standardized implicit non-limiting limitations.

The executive's inquiry regarding the extra-long territorial arms reach of the U.S. Department of Justice, working in harmonious conspiracy with the EEC Department of Extra Competition in Brussels was dismissed summarily.

Yet, he paused and reflected a moment when the executive told him: "You know, my patent and antitrust lawyer, a *novice* to be sure, tells me that in another infringement suit in which we are plaintiffs, the defendant is asserting misuse defense on the ground that we did not comply with the EEC antitrust provisions of the Rome treaty."

The executive then again reiterated his original request for a reasonably effective and workable patent, especially in the United States, the Common Market and Japan.

The director of TIPATS then recommended a manual entitled, "The Cut-off of the United States Antitrust Laws Beyond the 9-Mile Fishing Limit and the 17 Golden Regulations to Remove Article 85." Both of these provided for a new uniform antitrust and misuse law.

When the executive of the corporation restated his fundamental basic needs, the director of TIPATS finally answered simply and with an air of resignation: "I do not know, sir, if these laws will provide what you *really* need."

And, *I* do not know if the new laws proposed on the international or national scenes will give this executive what he needs or promote, indeed, a freer flow of protected technology.

I think the point of the story is so pertinent and brings home the essential shortcomings of current proposals so dramatically that I have presumed on your patience to tell it at length.

The PTC Research Institute is engaged in a broad study of international arrangements which relate to industrial property. One objective is to determine the effects of existing and proposed international agreements. That is, comparing "that which will be with what is."

In connection with this study, the Institute is analyzing the answers to an inquiry from foreign and United States patent experts. It is significant, I consider, that the answers to the fundamental question which was posed, namely, "What do you consider the most burdensome obstacle to industrial property rights abroad," can be classified in three main problem areas.

One, the filing of the patent or trademark application;

Two, the procedures for the granting of the patent; and,

Three, the exploitation, including the defense, of the patent.

The respondents recommended solutions to what they considered these three main problem areas as follows:

One, the problem: multiplicity of filing or examination to be solved by a central filing listed system.

Two, the grant of the patent: the main obstacle: the patent law of the foreign country is misunderstood.

Foreign parties state that we misunderstand their laws and that they do not understand ours.

Solution proposed: Harmonization of the substantive laws. For instance, abolish first to invent and interference.

Result: Allow the foreign party to show reduction to practice abroad. That is, put them in the same position as we are.

Three: Exploitation of the protected right.

Main obstacle: Antitrust or misuse doctrine; U. S. antitrust, EEC antitrust, for instance.

The main complaint of the respondents: These laws are a nuisance to good license agreements.

Solution: Exempt license agreements (patents and trademarks) from the antitrust laws here and abroad.

Desirability: Highly questionable and unrealistic.

It is apparent that the answers from the respondents identify the main obstacles to the flow of protected industrial property not in a single area but in two or three main areas of industrial property protection: the filing procedures, the substantive laws, the antitrust law and law on misuse.

This, in my opinion, is significant. It is sound, too. Industrial property protection is a commercial business and legal functional entity.

What type of claim is written in a patent application relates to what can be used, misused or enforced in an issued patent.

Hence, I submit it is not adequate to provide a new cartridge, as the director of TIPATS calls it, for international filing systems and study its expected value in comparison with the present system. It is essential to

determine the value of any new law by its expected impact on the other problem areas.

It is not adequate in my mind, either to provide new packages of international commissions or of antitrust exemptions of the United States from foreign application of the antitrust laws or from the EEC antitrust laws unless we determine the effects on the ultimate value of the protected right.

I think it is most important to compare not what is with what will be, but to analyze the interaction of the main problem areas in this discipline. Consider the filing with the procedure for the grant, with the patent exploitation, with the use, the enforcement, the antitrust and tax laws. The borderline interaction, the interphase area of these problem areas, should be carefully studied.

It is probably quite foolish of me, particularly in the presence of the Director of the Research Institute, of which I am a Research Associate, and in the presence of a professor of law, Professor Rahl, on my right, but perhaps in tune with campus mood, to suggest less research in *one* area but to recommend the study of the interphase of the borderline problem between two or more areas.

The interaction between the areas of the present laws that comprise industrial property requires our attention before we change these laws.

It is on this note of foolishness, and of thanks to Russell Baker of the *New York Times* for his inspiration, and to you for listening, that I leave you. (Applause)

MODERATOR RAHL: Mr. Weiser has left us with a good many provocative questions, I would say, and I am just handing him one from the audience, which is a way of saying I think we should move directly into the question period.

***Panel Discussion and Question Period***

MODERATOR RAHL: I have distributed such questions as have come up so far. If some of you have questions please hand them to the ladies.

I think we should continue in the order of the program and I will ask Mr. Meyer first, who has a pack of questions there.

MR. MEYER: I start with a hangover question from Dennis Meyer yesterday who adroitly tossed it to me as he walked out of the room. The question is: "Would you please comment on any particular tax problems in licensing a party in a developing country which does not have a tax treaty with the United States?"

I would say, unless I am missing the point of the question, that the importance of having a tax treaty is the predictability that it produces. You will know, for example, whether or not you will be taxed as a resident, and under what circumstances, of that other country. You will know how your royalty and production payments will be taxed or withheld from and, if the licensee happens to be also a subsidiary of yours, you will know what withheld taxes there will be with repect to dividend payments.

On the other hand, where there is no tax treaty you do not have these assurances and you are more or less at the will of the local taxing authorities to change the law. So, by and large, you are better off to have the tax treaty.

There may be some reason, as a practical matter, not to deal with the developing countries because of their unpredictable attitudes towards taxation.

The next question.

"Did I understand you to say that a corporate party may restrict the transferee's ability to assign and yet restrict the rights of the transferor?"

Yes, I would say this.

One case that comes to mind is *Orla E. Watson* in the 10th Circuit.

For those of you having the U.S. T.C. Service, it is 55-1, § 4955, also found at 105 *USPQ* 352. Also the *Norgren Co.* case that I commented on.

This issue was raised in that case but it was strictly a spurious issue because the licensee did in fact find it possible and desirable to sublet without any consent from the grantor in that particular case.

There are some other cases cited in the *Watson* case holding similarly.

My next question is:

"Did you say that Sections 1231 and 1235 did not apply to a corporate licensor; what section does apply?"

I did say 1235 does not apply to a corporate licensor. However, Section 1231 is the section that defines a depreciable asset used in a

taxpayer's trade or business. This has equal applicability to corporate transferors and individuals. There is no section of the Internal Revenue Code that deals expressly with the sale of industrial property by corporations. There are other sections that have application, such as those relating to holding period, basis, and capital gains.

There is no counterpart to Section 1235 for corporations.

My final question is:

"With exclusive transfer of know-how in a foreign country, must the licensor forever agree to stay out of the country to create a capital gains situation? What are the critical conditions for same?"

The answer to this question is essentially yes. A patent right gives not only the right to make, use and sell the patent, but it gives you the further right to exclude others. The same rationale must be applied to unpatented industrial property. It would be possible, I feel confident, however, that the transferee could give back a license to the transferor so long as he isn't under any compulsion to do so as part of the transaction.

Thank you. (Applause)

MODERATOR RAHL: Thank you, Mr. Meyer.

I have one more question for you which I will hand to you and you can be trying to figure that one out. I am sure you will.

I will call on Mr. Creed for his questions.

MR. CREED: The first question is this:

"Where it is difficult to fix the duration of an asset to determine an appropriate rate of depreciation, why not apply the actuarial concept of survival by compiling comparable assets of the past—such assets which have been exhausted—and in this manner ascertain the probable life?"

All I can say is if you can satisfy the Commissioner under Regulation §1.167 (a)-3 that you have demonstrated a useful life with reasonable accuracy, then this would be acceptable. There may be certain industries where you can ascertain it by the study of turnover of technology. You can ascertain the functions of particular devices or formulae, or what have you, with some historical accuracies, or take the industry as a whole, as suggested in the question.

This may be a very good basis. My recollection is that there have been two or three cases where assets of normally indefinite life had been held depreciable. I think a trademark was one, and a secret process was another.

Both these cases are old cases, and I think at least one of them uses the historical approach. It has been some years since I have seen those

but that is my recollection. In given circumstances, your idea might be a very good one.

The next question:

"The transfer of a patent for capital gains purposes, does it require that the transferor must transfer title, i.e., ownership, to the transferee?"

If you mean bare legal title, the answer is no. The bare legal title may be retained. This is clear from the cases that cite *Watermann* v. *McKenzie,* which was a patent infringement case holding the exclusive right to make, use and sell entitled the party to sue for infringement. Moreover, the Section 1235 regulations hold that retention of legal title as security to secure performance, payment on schedule, what have you, is quite permissible. And as a general matter, even if the patent is sold for a large sum and there is no security interest involved, I think that under the cases the answer is yes, the transferor can retain title, because he will nonetheless have transferred all substantial rights to the patent.

The next question is: "Depreciation of a patent for taxation purposes: over how many years? Straight line, i.e., 1/17th, or what?"

The answer is that you may use any method provided for under Section 167.

As to the question about 1/17th or what: if you purchase the patent and use annual straight line depreciation, it is 1/17th of the purchase price. This assumes the patent has 17 years to run when you purchased it. If it was 13 years it would be 1/13th.

"How about foreign patents owned by a U.S. firm, depreciation benefits?"

If they are owned by a U.S. firm and employed in its trade or business or in the production of income, they may be depreciated. There is no requirement that the patent be a domestic patent.

MODERATOR RAHL: Mr. Meyer, do you want to take a quick crack at that last question?

I am mindful of the fact that we are a little bit behind time—not very much so; if all of the question-answerers would do their best to be brief, we would appreciate it.

MR. MEYER: "If there is a breach of agreement not to disclose a trade secret transfer, does the failure to sue on the contract as to the breach jeopardize capital gains treatment?"

I think the answer is, no. When you transfer a trade secret, one of the things you have transferred is the right of the transferee to protect the secret of that item. If he chooses not to, that is the risk you have assumed in transferring it to him in the first place. On the other hand,

this jeopardizes the value of what the purchaser acquired. So it is not likely that he would do it except under controlled circumstances.

MODERATOR RAHL: Mr. Braderman.

MR. BRADERMAN: This question relates to the present status of simplification efforts concerning the technical data regulations of the Department of Commerce. I believe the question is concerned with the export control regulations.

In the interest of time I would suggest that the questioner might wish to talk with Mr. Lightman of the Department of Commerce, who is here and can probably fill him in on the details.

The second question relates to the role of the Department of State in setting policy objectives.

Perhaps the best sense of policy in the whole field of export control and regulations with Eastern Europe can be gotten from reviewing the hearings that were held both in the House and the Senate in the last couple of weeks on renewal of the Export Control Act. The Administration's position is stated and we take our guidance from that.

MODERATOR RAHL: Mr. Green.

MR. GREEN: My card is an observation in the interest of precision. It was sent to me by Joe Lightman, whom I quoted.

In 1968, U. S. returns of royalties, management fees, and other payments associated with patents, trademarks and copyrights was $1,650,000,000 up from $1 billion in 1964.

I was overly conservative and used the 1964 figure.

MODERATOR RAHL: Well, that was a good short answer. Mr. Weiser.

MR. WEISER: The first question is: "What is the likelihood of the Common Market establishing its own—one, regional patent, and, two, licensing system in Brussels which would supplement or replace European members' national systems?"

The question is really a two-part question, as you see, relating to regional patent, European Common Market patents.

The matter is under active discussion again in Brussels. It is fraught with political and related difficulties but the matter has received new impetus and not much more can be said on that, although I think one can be a little more hopeful now than about a year or so ago.

The second question is licensing relating to antitrust provisions. I take it this is what the writer of the question meant. Licensing and antitrust provisions have been in existence now for about three or four years in the European Economic Community. Quite a lot of jurisprudence, both French, German and Dutch, and the Common Market jurisprudence, has developed since then.

Regarding licensing agreements, what is creating the difficulties and

controversies is that the compliance with the EEC antitrust provisions is not mandatory, but it relieves the party from private liability suit if he does comply with the antitrust provisions.

We find that quite a number of European companies will not raise the issue of antitrust compliance of a license agreement with an American corporation, not because they do not know about it but just because they are playing it very cool. They consider that they may have a valid defense for non-payment of royalities in the future when and if they find it necessary to challenge the agreement—for instance, when they have developed know-how on their own or when they have developed an improvement which could free them from the scope of the patent on the basis that the agreement did not originally comply with the antitrust provisions. Then they may consider whether there is a basis for invalidating the agreement. It is important to handle that issue at this time by negotiation if it was not handled adequately during the writing of the agreement or the licenses.

The second inquiry I would like to defer for later, because it is not quite clear.

The writer says: "How can U.S. firms participating in government technical assistance programs prevent disclosure without adequate compensation of real trade secrets to foreign competitors who desire to use such secrets in commercial transactions outside of a technical assistance program?"

It would probably be better if that question were referred to me later, because I would like to have more details on what disclosure is requested and how much of it is required.

THIRD SESSION

# III. Impact of Economic, Technological and Cultural Change

## Part A—Trademarks: Are They Valuable, and to Whom?

MODERATOR RAHL: I want to thank the Panel very much indeed for its fine performance this morning.

We would like to ask the new panel to come forward.

The third section is entitled "Impact of Economic, Technological and Cultural Change."

The first subject under this is entitled, "Trademarks: Are They Valuable, and to Whom?"

I can remember, when I broke into the antitrust law field a few years ago, people were arguing about whether trademarks were dangerously monopolistic. Now, times have changed. Now, we are asking: Are they worth anything?

Mr. McLaren, yesterday, in his remarks from the Antitrust Division's point of view, spoke, as I recall, entirely about patent-antitrust problems. I suspect there are problems of some sort, and I also suspect there are important values, and I am glad to call on Mr. Wands to discuss this subject.

He has been since 1937 with Chevron Research Company. And, as I suppose you know, this is the patent, trademark, copyright and

licensing organization for the Standard Oil Company of California family.

Mr. Wands' background is Harvard, through and through, and needless to say, he is a lawyer—Harvard Law class of 1933.

I am very curious to know how you are going to respond to this question they have given you, Mr. Wands.

It is a pleasure to introduce you to the group. (Applause)

**H. B. WANDS**

Thank you, Professor Rahl, and fellow panelists, and ladies and gentlemen.

Having worked so long on the trademark problems of a corporate family with world-wide activities and being mindful of the large expense of administering the problems, I have continually asked myself about trademarks—are they valuable and to whom?

I am greatly convinced that they are valuable but, as I remarked when I was asked to speak here, I have difficulty in bringing facts and figures to prove this.

The output of U.S. companies in Europe alone in the very near future will exceed $100 billion. It is calculated that within 15 years U.S. industrial organization in Europe will be the third largest economic power in the world, after the U.S. and the Soviet Union.

In my opinion, this economic organization and its growth would not be possible without the use of trademarks. In order to illustrate the value which a company in international operations in various fields places on trademarks, I have thought it would be of interest to you to explain what one company did to protect a mark on a world-wide basis and to give you some of the thinking in back of such a program. The trademark I propose to deal with is the trademark CHEVRON, and I will approach the protection problem by asking: What does it cost? Where do you acquire it? What do you do in acquiring it? and, Who owns the protection?

In the first place, it should be assumed that the cost of the program would be somewhere between $300-600,000. This figure assumes, of course, that in the registration and protection program no unusual problems of earlier use or registration by others are encountered. If

any such problems are encountered, a corporation can easily spend more than the $300-600,000 figure in a single important country. The costs to which I refer include fees to various registration authorities, domestic and foreign registration agents and counsel, travel costs and the like. In a large registration program conducted with an eye toward the reduction of costs, in my opinion, it is necessary to estimate a minimum of $150 per registration obtained.

Now, where do you get this protection?

I think many clients make the mistake of protecting a mark only in those countries in which they are presently actively marketing. When this policy is followed, a company engaged in international operations is likely to discover that when it wishes to expand territorial use of the trademark, the mark is no longer available to it. In my opinion, in the long run it is cheaper to register the mark on a world-wide basis even though it is difficult to foresee at present the use of the mark in certain countries.

This involves registrations in some 200 trademark jurisdictions including, of course, the 50 states of the U.S. and the U.S. Patent Office.

If the trademark or housemark is one usually used in color, registration applications should be obtained in both color form and in black and white. With a black and white registration, many countries will give protection regardless of the color used by an infringer. However, if the infringer has simulated both the mark and its color, the registration with color specified is materially stronger, especially in those situations in which the infringer has retained the colors and varied the mark in some regards.

If the mark is one which is a composite of a word and a design, it is recommended that the composite, the design alone and the word alone be separately registered. Usually the infringer does not duplicate the use of a composite mark. If the word aspect of the mark is duplicated, obviously the strongest registration to assert is the separate registration of the word. If reliance is placed exclusively on the composite registration, the infringer sometimes escapes by convincing the court that his mark is not confusingly similar to the composite mark when viewed as a whole. Suppose, for instance, the infringer uses the word ZELL as applied to petroleum products and is charged with infringement by the owner of the trademark SHELL. If the trademark SHELL is protected only by a registration for a combination of a SHELL Design and the word SHELL, the infringer will, of course, argue that ZELL is unlike SHELL and that the infringer used his trademark ZELL in a diamond shape. If, however, the claim of

infringement is based on the registration for the word SHELL alone, then the court's attention is directed more closely to the similarity between SHELL and ZELL. Further, in many countries it is desirable to register the mark not only in its English language form but also in the local language translation of the English language version. In the U.S. and in various other countries, use of the translation of the mark is considered an infringement of the mark; however, there are countries where this is not true.

For what products should the mark be registered? This is a most important question and unfortunately time does not permit giving it the attention it deserves. However, it can be stated that some companies make the mistake of economizing on the product scope of the registrations obtained and, when their product line expands, find the mark is no longer available for the new product. It is recommended that a company should err, if it must, on the side of the broader rather than narrower product coverage. It is realized that in some countries registrations become unenforceable if no commercial use occurs within a specified period. However, this is a problem which can be dealt with if the client does not use too many different marks. It will be clear, of course, from what I have said and will say, that it is very important for a corporation to concentrate its trademark use on one or few marks.

Now, who should own the registrations after they have been obtained?

Usually the choice is between the U. S. parent company and its local foreign subsidiary. In my opinion it is important that both the U. S. and the foreign registrations remain in the name of the U. S. parent company. My reasons for this belief are as follows:

Very difficult problems of administration and parent/subsidiary relations arise if title to local foreign registrations stands in the name of the local foreign subsidiary. Local foreign subsidiaries understandably tend to view their trademark problems within the territorial confines of their country. However, for a corporate family operating in many countries, it is not practical to act in one country without vitally affecting the family in other countries. Further, it is of material assistance to have the U. S. registration stand in the name of the U. S. parent company in the event of war, expropriation, nationalization and similar commercial catastrophes. When these events occur, theoretically it would be no more difficult to reestablish or regain ownership of the mark if the registration stood in the name of the local subsidiary. As a practical matter, however, it does not work that way. Past experience of many companies in international operations affected by such catastrophes has shown that protection of the marks is

facilitated if the registrations themselves and their ownership are in the hands of a U. S. parent company. Further, many U. S. parent companies have more than one subsidiary operating in different fields in individual foreign countries. Sometimes the trademark registrations cover products sold by a number of different subsidiaries. The handling of problems of licensing and product quality control is facilitated if the registrations stand in the name of the U. S. parent company. This is particularly true when the products of the U. S. parent company are sometimes shipped into a country where a foreign subsidiary operates.

Assuming it has been decided how much the corporation is willing to spend on the registration program, the products which are to be covered by the registration and the countries in which the registration will be sought, who should administer and carry out the registration program? In general, the answer to this question will depend on the corporation's legal personnel and the skill and background of lawyers in the corporation in foreign trademark operations. As you know, in the United States there are a number of law firms who specialize in protecting trademarks, patents and industrial property in foreign countries. These firms, through their U. S. personnel and their foreign associates, have the background and knowledge, working through the corporation's U. S. counsel, to handle the whole program.

Some corporations' experience in this field is of sufficient long standing that they are able to execute and administer the registration program themselves, working through their own foreign associates in the various countries involved. Each procedure has its advantages. Unless the corporation has extensive foreign patent and trademark interests, it is usually more effective to deal through U. S. law firms concentrating in this field. However, if the international operations are of long standing and if a substantial trademark and patent program is involved, it is sometimes feasible to accomplish economies and to execute corporate aims more effectively if the corporation relies primarily on its own lawyers and their foreign associates.

One of the things which should be kept in mind is that, compared to the number of corporations requiring their services, the number of foreign trademark associates is limited. Before enlisting assistance of a foreign associate, it is desirable to attempt to learn of some of the various other corporations he represents, either directly or through a U.S. international trademark law firm. This applies whether you deal directly with the foreign trademark lawyers or agents or whether you are represented by them through a U.S. international trademark firm. In general, the willingness of foreign lawyers and agents in this field to

represent competitors on unrelated matters is somewhat more relaxed than in the U.S.

Unfortunately, most of the foreign representatives who file your trademark applications and represent you before various registration authorities are not lawyers. If they are presented with a difficult problem of their local law, it is frequently necessary for them to engage local lawyers. If it is feasible for you to do so, it is desirable to deal with representatives who are lawyers. In any event, it is desirable to know a lawyer in each country in whom you have faith and who is in a position to back up your local representative before the trademark registration authorities.

A difficulty which is frequently faced in the protection of trademark rights in foreign countries is that your trademark agents are sometimes limited in the amounts which they can charge for specified services. The real trouble is not with the existence of the limitations but with the fact that frequently the limitations are too low to permit the agent to be able to furnish you with the full services you need and request.

A corporation about to launch a world-wide registration program to protect an important mark is, in my opinion, well-advised first to incur the expense of a preliminary search as to the availability of the mark in each country. Some corporations have made the mistake of filing for a registration in a country without knowing in advance the conflicts which will be faced. Many times an inactive registration or trademark can be purchased for a nominal price or otherwise provided for if it is known prior to your attempted registration.

Another reason for being acquainted in each major commercial country with a competent lawyer who is in the position to back up your agent before the registration authorities is that in many foreign countries there is an amazing dearth of decisional authorities, and yet your reasonable objectives can frequently be accomplished in a lawful manner in apparent conflict with the local law. In some countries, for instance, non-exclusive trademark licenses are precluded by the law and yet lawful, enforceable non-exclusive licenses can, under certain circumstances, be granted without damage to the trademark involved.

Whenever it is feasible for you to do so, in my opinion, it is highly desirable to have a housemark which is part of your corporate name or names used in the country in question. The utilization of the mark in the corporate name results in a use and advertising of the name which greatly simplifies the problem of maintenance of the mark in the degree of protection which it receives.

You will realize, I know, that I have touched on only a few of the highlights in a program to protect a trademark internationally. Each

of the aspects to which I have referred of such a program could easily be subject matter itself of a two-day discussion.

Each large U.S. company with international operations faces the world-wide protection program in its own way; however, in general the approach I have described above is used by many large U.S. companies.

My subject was supposed to be "Trademarks: Are they Valuable, and to Whom?" I realize how incompletely this question has been dealt with by me. However, I have at least illustrated that many companies must believe the trademarks are valuable to them if they are willing to pay for the protection program I have briefly described.

Thank you very much. (Applause)

MODERATOR RAHL: I think that has been well-established by your talk, when I listen to how many things must be done and the cost of doing it. Obviously a very high value is placed on these marks.

We will ask now Mr. Joseph M. Lightman to comment also on this subject. He was introduced yesterday and I will simply remind you that he is an international economist with the Bureau of International Commerce of the U.S. Department of Commerce.

He was trained at George Washington University and is currently engaged in trademark research for the Institute.

Mr. Lightman.

**JOSEPH M. LIGHTMAN**

Thank you, Professor Rahl.

The United States Supreme Court, in a much-cited decision handed down in 1942 on the role of trademarks, stated:

> The protection of trademarks is the law's recognition of the psychological function of symbols. If it is true that we live by symbols, it is no less true that we purchase goods by them. A trademark is a merchandising shortcut which induces a purchaser to select what he wants, or what he has been led to believe he wants. The owner of a mark exploits this human propensity by making every effort to impregnate the atmosphere of the market with the

> drawing power of a congenial symbol. Whatever the means employed, the aim is the same—to convey through the mark, in the minds of potential customers, the desirability of the commodity upon which it appears. Once this is attained, the trademark owner has something of value. If another poaches upon the commercial magnetism of the symbol he has created, the owner can obtain legal redress. . . . (*Mishawaka Manufacturing Co.* v. *Kresge Co.,* 316 U.S. Reports 205, 53 U.S.P.Q. 324-5).

In 1968, this nation's production of goods and services rose to an all-time high of $861 billion—nine percent over 1967. Although four percent of this advance was accounted for by higher prices, the five percent increase in physical volume was nevertheless substantial. Economists generally agree that the U. S. GNP will be in the $900 billion range by the end of this year and well over a trillion dollars by the early 1970's. Also, in 1968, the U.S. exported about $34.5 billion worth of goods, up from $31 billion last year.

Latest Commerce Department forecasts project an export growth rate of 6.2 percent per year to 1973, when the U. S. export figure will reach between $43 and $46 billion.

With this continuing increase in U. S. production and exports, and demand rising in all major markets of our economy, where do trademarks fit into the picture and precisely how valuable are they?

Since ancient times, going forward to the Middle Ages and the era of mercantile Europe, distinctive markings have been applied to goods to be sold in domestic and foreign commerce to indicate their ownership or origin. In modern times the growing multitude of manufactured products, and services, I might add, entering into commercial markets, and advertised and publicized by a wide variety of communication media, have advanced trademarks to key marketing elements in industrialized economies and international trade. From the manufacturer's standpoint, the trademark has become more than merely a device for distinguishing his goods from those of others. It is the focal point for identifying to the public the quality of his goods and the goodwill inherent in his business. It is also an effective tool for his use in advertising, sales promotion, and other publicity.

To the consumer, of course, trademarks are important in identifying the goods they want to buy, and in distinguishing standards of quality associated with particular brands. Also, in today's affluent society, consumers may not necessarily consider price as the governing factor in deciding whether to buy certain products. Their motivations may be governed primarily by quality comparisons symbolized by trademarks. And in the field of international trade, trademarks can be, in effect, pioneers in foreign markets for a manufacturer's goods. This may be

particularly true where U.S. marks, for example, have already appeared in advertising in magazines and other publications disseminated abroad, and on U. S.-made products themselves reaching foreign markets, perhaps without the owner's knowledge. In effect, the manufacturer's trademarks have become his "silent salesmen" abroad. They are thus ready-made tools either for the start or the continuance of export marketing campaigns.

Several years ago, The PTC Research Institute initiated a study, which is still underway, of the economic role of trademarks in our economy, in efforts to develop a more comprehensive body of statistical and empirical knowledge than was then in existence on that subject. We have sought not only to provide better insights into factors governing management's policies relative to trademarks, but those of consumers as well. We have also sought to obtain more specific indications of the value of trademarks to the American business community. Despite their ready admission that trademarks are extremely valuable properties, many business firms find it difficult to attribute a dollar figure to this value. Nevertheless, we have been able to acquire very illuminating information on trademark values so far in our research project, which I shall discuss briefly.

We have most recently completed the phase of our study relating to management interests in trademarks. Here, we surveyed 75 U.S. manufacturing firms, including those of the top 50 that account for about one-third of the value of all products made and sold by the 400,000-plus manufacturing firms in this country. Our survey also included 132 of the major financial institutions, transportation, public utilities, insurance, and communications firms that provide services, as distinct from goods, and that use service marks extensively to identify themselves and their activities to the public.

As to trademark values, it was evident from manufacturers' replies that two types of trademark values could be indicated—one appearing in the balance sheet as perhaps the actual cost of a property bought or sold, or the other representing management's estimate of what the mark actually represents to the company as "goodwill" and reputation for sales purposes. It was the latter figure, representing the true value of the mark to the firm, we were interested in.

While our manufacturing firm respondents generally avoided assigning goodwill values to their trademark portfolios, they were virtually unanimous in statements indicating that such property rights were among the most valuable they owned. And this was true not only among manufacturers of consumer goods but among industrial goods producers. The latter attached no lesser importance to their trademark

activities than did the consumer goods marketers. The industrial goods producers valued their trademarks highly, not only for purposes of sales to industry but also as focal points for informing the public, in all forms of media, that well-known consumer products encompassed their branded components or were made with their branded machinery.

Most of our respondents, when asked to indicate what "goodwill" value they attributed to a house or primary product mark that had been in long use and extensively advertised, gave replies typical of that from the firm which said:

> It is difficult to assign a specific value to the mark but the sales of equipment symbolized by it have been in the millions annually for (a number of) years.

Other firms indicated that their well-known trademarks had been major contributing factors in their sales growth patterns, through identification of their corporate images and high quality, reputable products. All valued their trademark portfolios "in the millions."

A number of manufacturing firms provided us with specific formulae they used to establish a goodwill value for their trademarks. I will not go into the details of these formulae except to mention that they appear in the PTC Journal IDEA on pages 485-486 of the Winter 1967-68 issue, Vol. 11, No. 4, and pages 329-330 of the Fall, 1966 issue, Vol. 10, No.3.

Now, what about the service industries? Here, again, many of the respondent firms in the transportation, banking, insurance, public utilities, and communications industries that we surveyed noted that their service marks were extremely valuable but that quantitative estimates of such values were difficult to achieve. In the few cases where efforts were made to assign such values, they varied widely.

For example, a major U.S.-owned international airline with annual operating revenue of about a billion dollars valued its service mark portfolio, consisting of two house marks and 20 special service marks, at $20 million, based on the "amount spent for all advertising last year."

A smaller U.S. airline with annual operating revenue in the $25 million to $50 million range valued its two house marks at $150,000, based on their establishment costs.

Of the three respondent banks, all with assets of over $1 billion, one valued its house mark at $1,300,000, on the basis of its replacement and initial advertising costs. Another bank assigned the value of $10 million to its two service marks based on the cost of their first ten years of advertising. A third bank said:

> To the extent that its two service marks designate or sum up the quality of this institution, all of its $2 billion in assets could be set as their value, but we cannot segregate a portion of assets to "goodwill."

Several insurance companies, each with total assets of over $1 billion, provided some interesting calculations. One firm, valuing its house mark at $5 million, stated:

> Our judgment is that in theory we would be willing to spend this amount in legal fees to prevent another financial company from using our house mark.

Another firm, valuing its mark at $2,500,000, did so on grounds that the mark

> . . . is familiar to 25 million American adults, and that in the main favorable qualities are associated with it by these people. If such a position is valued at a mere 10 cents per head it will support the estimate here offered.

Most of the public utilities firm respondents stated that they were unable to provide any estimate of the value of their service marks, although they readily admitted that service marks were an important element in their promotional, advertising, and image-building activities. Typical of such statements was that of a public utilities firm which indicated that its

> . . . symbol alone, without any inscription, has become so identified (in the area of operations) with the public service system and its services that the (company's name) no longer needs to be added to the symbol.
>
> The symbol appears on buildings, buses, and service vehicles. It is generally used on all advertisng. Its monetary value to a regulated company cannot be measured.

A comment from a large railroad headquartered in the Midwest, which had adopted a new mark in 1967, is also worthy of note:

> As far as putting a dollar value on this new corporate symbol, we know of no way this can be done. We do know our new mark has gained for us a great deal of favorable mention and some valuable free advertising. To many people who never deal directly with the railroad a passing boxcar . . . carrying the new symbol *is* the railroad. In this case the symbol has an incalculable value. Even in the case of a shipper who has daily contact with the railroad, the mark serves as a reminder that he is dealing with a progressive railroad that has outgrown its old trademark.

It is thus evident that the subjective values placed by managements on goodwill identifiable with their trademarks are generally immeasurable, but where quantitative values are available, they vary widely.

Clearly, trademarks are among the most valuable assets many firms have, not only in the sale of goods but of services.

I now turn to a brief discussion of trademarks and consumer interests. While The PTC Research Institute has not yet completed this phase of its research, I will cover some of our preliminary work.

Available statistics indicate that the average person is exposed to hundreds of spot advertising impressions every day from magazines, newspapers, radios, TV, and billboards. This also includes advertising from trucks, signs, packages, stores, etc., which also confronts him daily. The trend is evident in the advertising expenditures in this country, which have grown from $5.8 billion in 1950 to about $18.5 billion in 1968. Or, put another way, in 1950 advertisers spent about $38 per person as compared to about $92 per person today. This constant effort to sell goods and services to the public necessitates, of course, merchandising short-cuts, i.e., trademarks to enable the public to discriminate more clearly between advertising messages and to distinguish the products or services described therein that it wants.

The typical consumer entering into the marketplace likes to make as few decisions as possible. Therefore, if he can receive ready identification from a piece of advertising without having to absorb too much verbiage, his selection processes are eased considerably. Also, the self-service and selection system now generally prevalent in most retail establishments for manufactured items has imposed upon trademarks the front-line role of "silent salesmen" in such outlets.

Total consumer expenditures in the U.S. reached an all-time high of $534 billion in 1968. Although the rate of economic growth may slow down somewhat, increases in consumer expenditures will continue as our economy soon approaches the trillion dollar mark. Economists also predict that during the next ten years increased leisure and more discretionary spending, as average incomes increase, will cause accelerated growth affecting such industries as communications, banking, and the so-called travel/leisure/culture industries.

Competition for the consumer's dollar will continue to be possible only if he has the means to distinguish between the same type of goods or services emanating from different firms. Since trademarks will provide the symbolic basis for selection, they will continue to be important to consumers in determining their preferences, and to suppliers in seeing that their quality standards symbolized by trademarks are not only maintained but improved, in our competitive society.

Finally, I will discuss the role of trademarks in the international trade picture. As I mentioned earlier, last year this country exported

approximately $34.5 billion worth of goods. Our calculations, from the Census Bureau figures, show that about $21 billion, or about 62 percent of the total value of these goods, were of the type generally marked with or sold under trademarks. The balance of 38 percent was accounted for primarily by fungible goods, such as agricultural and mineral products, which may also share in goodwill of the type represented by a trademark, either because the buyer relies on the reputation of the seller's trade name or the shipping containers carry the exporter's trade or service marks.

In its recently published "Five-Year Outlook with Recommendations for Action, in U.S. Foreign Trade," the U. S. Department of Commerce notes that an export goal of $50 billion ($4 billion above the most favorable projection) by 1973 is feasible if the U. S. government commits itself to policies proposed in the report's "recommendations." The value of trademarks to the U.S. export program is recognized in one of the "recommendations," which calls for efforts to achieve more simplified international trademark filing procedures as a means of assisting our exporters.

The seven industry groups that are expected to supply the largest share of the export action for the next five years are those that produce goods identifiable by trademarks—chemicals, construction and mining machinery, industrial machinery, business machines, aircraft and parts, scientific instruments, and photographic equipment and supplies. Firms in these and other industries seeking to open or expand their export markets will find their trademarks to be ready-made tools for this purpose, especially where the marks are already well-known abroad.

So far, in the course of our research, the economic value of trademarks in three basic elements of our Gross National Product picture is clearly evident—industrial and service production, personal consumption expenditures, and merchandise exports. As we delve further into this project and more detailed information comes to light, our findings and analyses will of course continue to be published for business, legal and other professional groups, in forthcoming issues of the PTC Journal—*IDEA*.

Thank you. (Applause)

MODERATOR RAHL: Thank you very much, Mr. Lightman.

Now, since Mr. Wands can't be here this afternoon, he is going to take a quick crack at a few questions which were passed up here.

Immediately after that, the Institute would appreciate it if you would go as quickly as possible to the luncheon room where there will be a talk by the Chairman of the FCC and at 1:45 we will resume here in a tight schedule for our "Crises in Communication."

Please follow the "countdown" as best you can. Meanwhile—Mr. Wands.

MR. WANDS: "In most foreign countries, e.g., is it taken with use requirement, or is sale necessary to retain the mark, or is shipment in commerce only adequate?"

This, of course, would vary slightly from country to country, but it is not necessary that you have a sale in the country. It is sufficient in most of these countries if the product is advertised in the country.

In Italy, for instance, we have been able to rely on advertisements and publications like *Time* and *Life* which are distributed in Italy but not necessarily printed in Italy.

Another question:

"If black and white combination, like Shell, would give protection for all color, why would you register red and yellow as in the United States?"

I think the main reason for this is that you run across so many different attitudes in different countries. Some countries don't give this black and white protection and say you must use your mark as registered.

If you have the situation where the infringer has simulated your design and had the temerity to use the color also, then your opportunities of being upheld are greatly increased if you have the color also. In the same case, if he copied your design in different color, your black and white registration would be sufficient.

"If you discover in your search a conflicting registration presumedly unused, how do you, having made this discovery, remove the conflict? Does it also require purchase from the registrar?"

There is nothing that you have to do, really. When you are talking about a worldwide registration program, the amount of money involved is so large, and in the case of an unused mark of this type the cost of buying it outright is so small relative to overall cost, the wise thing to do is to buy it. Sometimes, initially, if it hasn't been used you could disregard it if you wanted to. But, if you could buy it for five or ten thousand dollars, you would be wise to do it.

"Is a mark less likely to be expropriated if it stands in the name of a subsidiary incorporated under the laws of the expropriating country?"

I don't think it is any more likely to be expropriated. The problem of getting it back is more difficult if it is in the name of the local

country, because there you have its books, the trademark certificates, they are all taken over.

If it is owned by the U. S. company it is easier for the State Department to give you help and assistance in your overall relations. You are less likely to be considered an infant who has gone out in the world if the registration is in the name of the home company.

MODERATOR RAHL: Thank you very much. That is the end of the morning session.

(Whereupon, at 12:30 p.m. the Conference recessed, to reconvene at 1:45 p.m. the same day.)

## LUNCHEON ADDRESS

# Communications 1969: Crisis or Ferment?

ROSEL H. HYDE*

IT IS AN HONOR AND PRIVILEGE to accept your kind invitation to address the thirteenth Annual Public Conference of The PTC Research Institute.

I have taken particular note of the Conference's ambitious undertaking to explore the growth, protection and transfer of technological information and to examine the present crises in communications. The latter point I assume refers to crises in the broad sense of the term as meaning a "turning point." For we are certainly at one of those turning points or cross-roads in the history of communications. Out of these crises must come a communications policy fashioned to serve better the advancing aspirations of our entire society.

* Mr. Hyde is Chairman of the Federal Communications Commission.

In calling for a comprehensive study of national communications policy in August 1967, President Johnson said:

> Man's greatest hope for world peace lies in understanding his fellow man. Nations, like individuals, fear that which is strange and unfamiliar. The more we see and hear of those things which are common to all people, the less likely we are to fight over those issues which set us apart.
>
> So the challenge is to communicate.

Change and the prospect of change demand that we re-examine methods and attitudes. We must orient ourselves to tomorrow. We must understand the impact of new technology and new industrial and social needs and set courses that will take us where we ought to go. But this cannot be done in an instant and there are many uncertainties that must be resolved.

In a span of just 20 years' time we have gone from telephony and telegraphy to the concept of complete communications—voice, video, and data in manifold forms. Over communications channels we get the facts and figure the odds. We count the pulses of astronauts in space and update inventory records every time a box of tacks leaves the warehouse shelf. Generals at military bases scan weather maps around the world. Arnold Palmer's approach to the 16th green, somewhere in Hawaii, goes sailing by satellite into our homes. In pipes that snake across the land, oil and gas, remotely controlled and metered, flow faster, flow slower, flow faster again. Uptown bank tellers check downtown records. Market quotations come up in lights under our fingers. Teachers scratch notes on pads and students a hundred miles away look at the notes and scratch their heads.

Developments that could be described as a merging of cable and microwave technologies have led to the production of the wave guide, a steel pipe through which electro-magnetic waves are transmitted, so as to provide a capacity of considerably more than 200,000 voice grade channels, or over twice the capacity of the most modern coaxial cables. We find synchronous satellites of increasing capacity, adaptable for both international and domestic use. In the process of development are laser beams which, when perfected, will increase severalfold the transmission capabilities of communications systems.

Changes are taking place not only in the technology of switching and transmission devices but also in the representation of information and the theory of its transmission. What we ordinarily call data, that is, information in the form of decimal digits or alphabetical characters, is readily transformed into binary digits, which can easily be represented by two-state electronic devices . . . and transmitted over a com-

munications line as a series of electrical pulses. It is possible also for analog voice signals to be transformed into bits for transmission and reassembled, so to speak, at the other end of the line into the original speech sounds.

Greater efficiency in the transmission of visual images has made the picturephone practicable, and it is undergoing a limited-scale test in business applications at the present time. Protection of individual rights to be seen or not to be seen is assured by a switch which allows any party to take himself out of the picture, so to speak, whenever he desires.

The technology breakthroughs which have perhaps excited the imagination more than any others in our lifetime are those relating to satellite communications. It was only some seven years ago that the Congress enacted the legislation which paved the way for the commercial exploitation of technology in this field. In August 1962 the Communications Satellite Act became law. Early in 1963 the Communications Satellite Corporation began to function. In July 1965 commercial service was inaugurated via Early Bird. Since then two other generations of satellites have been designed, built and put into service and today these satellites are one of the mainstays of our communication facilities across both the Atlantic and Pacific Oceans. Within the next several months a satellite will be available over the Indian Ocean area and true global communications via satellite will be possible.

Early in 1971 the next generation of satellites will be ready for service and will provide many thousands of channels over each of the three ocean basins. The rapidity of this program can best be appreciated when we recall that only a decade ago a transatlantic cable with 36 voice channels was considered a modern electronics and communications miracle. Eight years ago a 120-circuit cable was the last word in development. Four years ago a 240-voice circuit satellite was the then ultimate word. Today a 1,000 circuit via either cable or satellites is the norm for international communications and, tomorrow, 4,000 circuits will be the norm.

The potential of this new technology has scarcely been appreciated. Real time availability of television is the first of many benefits we can derive. Many countries are actively studying the ability of the satellite to supplement and promote communication facilities and to provide them with means of reaching all of the population for instructional and educational purposes.

This is a new world of communications and it gets newer every day. Transistors, diodes, memories, integrated circuits . . . microwaves, gigahertz, wave guides and lasers . . . this dynamic technology has the

world on the double. It is a technology that overflows corporate and national boundaries. It is broad-based, many-faceted, worldwide. It generates new ideas, new ambitions, new challenges. And it poses new problems in regulation and requires that the FCC enhance its ability to meet its day-to-day responsibilities and, at the same time, evolve sound policies looking toward the future.

For example, in the just mentioned international satellite field the Commission was called upon to decide the two hotly contested matters of ownership of earth stations and the authorized user question, both of which we resolved with expedition.

A closely related matter is that of the future of transatlantic cables. The Commission faced that problem last year and granted permission to the U. S. carriers to join with several European administrations to lay TAT-5 with certain restrictions designed to provide a measure of economic protection to the satellites. The Commission decided that a combination of systems is best—that the presence of the two makes it easier to ride out failures in either one; and that the point is not which system is better but that neither system is perfect, so that we should have them both to complement and supplement each other.

With threshold success for international satellites barely achieved, we are deeply engrossed in the process of determining, not whether they will likewise be used domestically, but rather when, where and by whom.

I consider the eventuality of making satellite service available domestically as among the most profound matters to face the FCC. The decisions we make relating to domestic use of communications satellites will have far-reaching effects upon present carriers, both on a within-state and a nation-wide basis. They cannot help but eventually have a revolutionary impact on the interest of the public in rapid, efficient and economical service.

In broadcasting, Pay-TV and the rapid advent of CATV with its wire city potential and capability of being converted into broadband uses are but two of our thorniest issues. In common carriers, all aspects of communications rate structure for domestic services are under searching scrutiny; the role of competition in the domestic common carrier industry and its international counterpart is being re-assessed; the traditional restrictions on the right of entry into the common carrier industry are being reconsidered; the market for communications equipment, foreign attachments and private systems is making expansion beyond the limits heretofore permitted; and within private and public sectors there is agonizing soul-searching as to the policies

and directions that shall guide the future of computer services and their relationship to communications.

I would like to discuss this latter point in more detail.

This relatively new development in computer technology—the dependence upon communications—affects many public policy questions. The result is the Commission's current inquiry into what we have termed "the growing interdependence between computers and communications."

As some of you may know, the inquiry has been characterized by many as the most important the Commission has ever embarked upon. It is one which could have far-reaching effects on the future of both the communications and the computer industries. The need for this proceeding becomes more apparent every day as the interface and interdependence of the modern computer and communications facilities rapidly grow. It is estimated that by 1970 25 percent of all computers will be linked to their users by communications channels.

At issue in the proceedings are the regulatory status of time-shared computer services, the relevance and fairness of existing communications tariffs and practices, and the potential impact of data concentration on privacy.

Perhaps of greatest importance is the core question which permeates this inquiry. Can new data services operate in the best interest of the public in a competitive environment, or should they be brought under the same regulations and restraints as communications utilities?

The main regulatory and policy problems which we face stem from two facts:

(a) Modern computers can be used as communications control devices in message switching and circuit switching applications, and data processing can be performed at the same time on the same machine.

(b) Modern computers can be connected on-line to common carrier data communications facilities. Thus, with the support of the common carrier communications facility, a company can offer "for hire" remote time-shared data processing and information retrieval services.

The melding of computers with communications leads us to some intriguing situations. Since the same computer can be used as both a communications switch and a data processor, a non-regulated entity offering communications-linked processing services is in a position to perform concurrently communications switching services—a traditional common carrier function. On the other hand, the common carrier who

uses computerized switching is in a position to concurrently sell data processing services.

The potential, therefore, exists for the communications carrier and non-regulated entities to compete in a regulated field—communications—and in a non-regulated field—data processing.

The mix of data processing and communications services within the computer has numerous and complex regulatory implications with which the Commission must come to grips. First, can these activities be separated into discrete communication and non-communication compartments? Are they reasonably susceptible to being distinguished one from another? Or, because of the very nature of the operations involved will data processing, information storage and retrieval and message switching become so interrelated and intermixed as to become an inseparable package?

Second, if these activities are separable, should the message switching element of the package be treated as a communications common carrier activity and, as such, be subjected to regulation whether engaged in by the conventional carriers or others?

Third, if these activities are not separable, will protection of the public interest require governmental regulation of the entire package whether offered by common carriers or others? Or should public policy permit free and uncontrolled entry and operation in the market by both common carriers and non-common carriers? In this connection, it must be kept in mind that computer-service entities participating in this business may find themselves at various levels of competition with common carriers upon whom they must depend for communications channels. Under these circumstances, the policies of the carriers in furnishing facilities to the computer industry could affect the competitive posture of that industry. This result could come about from the pricing practices of the common carriers or from their refusal to make their facilities available on reasonable terms and conditions. Can effective rate-making and other regulatory procedures and policies be devised to avoid these situations?

On the other side of the equation, manufacturers of computer hardware also operate data processing centers. What if any of these manufacturers follow a policy of subsidizing their computer service operations out of other unrelated revenue sources? How will it affect the competitive ability of other participants of the computer service industry—both carriers and non-carriers? The answers to these and other related questions will assist in the development of sound public policy in this area.

The world of communication has been described as " . . . by

tradition placid and stable." In this serene world, sender and receiver have had but one objective—to be understood. For years communications common carriers dealt only with talkers and typists and the former far outnumbered the latter. Services were conditioned to make talk clear and swift. Charges were established to suit the predilections of oral conversation. Services were improved making connections faster and more reliable. Lines, cables and microwaves were welded into a common system over which the voice was transported to be received unclouded. Comes now the computer with sophisticated demands for transmission accuracy and requirements for attachment of more and more equipment to the communications system.

The result must be accommodation of the almost insatiable appetite of the computers for communications links.

Progress is being made in two directions: Computer technology is developing a growing awareness of the possibilities and the limits of our existing communications plant. Communications technology is recognizing the adaptability of its plant for efficient and economical computer use. There are emerging the beginnings of a common awareness and a common language. There is solid reason to believe that more and more progress is being made to assure the optimum adaptation and development of the communications plant to recognize and meet computer needs. Thus, carriers are offering more sophisticated wide-band services such as the Dataphone 50-exchange service initiated by the Bell System and the 4.5-megacycle bandwidth offerings of United Telephone and General Telephone and Electronics. The needs for higher speed transmission and greater accuracy are being realized in the development of Electronic Switching Systems (ESS) and digital transmission facilities. Pulse Code Modulation with all its portents for improved communications in the future is well along in its development. It is evident that today growth and improvement are the prime characteristics of that broad area we call data communications.

As I suggested at the beginning of my talk, we have been brought to this crucial period in the history of communications in no small measure due to the rapid advance in communications technology and its widening application all through modern society. However, I suggest that far more significant than the problems technology creates are the great new opportunities it provides. We must continue down a road which assures the existence of a regulatory atmosphere within which orderly technological advances will be encouraged and their benefits made available to the public.

The future of communications is exciting. And the future course of

mankind rests in no small measure on our response to the challenges of "space age" communications.

Thank you.

# III. Impact of Economic, Technological and Cultural Change, Continued

## Part B—Crises in Communication

DIRECTOR HARRIS: If you have any questions, please write them down and pass them along, and they will be picked up by the ladies in the aisle. We will reply to all questions, though briefly.

Now, Ladies and Gentlemen, we are ready to resume the third section on "Impact of Economic, Technological and Cultural Change," and I return you to Professor Rahl.

MODERATOR RAHL: I was conferring with this large and distinguished panel about the arrangements for this afternoon, which pertain, as you know, to the third part of the program, the third section, "Impact of Economic, Technological and Cultural Change," and before introducing any of the speakers and starting into Part B, "Crises in Communication," I just want to make a personal statement to you indicating as a newcomer to the Institute's work how very impressed I am about the range and quality of research which so many different people are carrying on under the auspices of this Institute. It is quite a tribute to the Director and the Advisors that they are able to command such talent. I say that as an observer in academia where this kind of research—the kind of thing the Institute is doing—represents what probably is the greatest need in our profession.

I think that if you spend time around a law school today, in this period of change that we are going through—everybody trying to figure out where it is going and how—one thing you become acutely aware of, as was stressed yesterday by Oppie and others, is lack of information on the basis of which to make intelligent decisions concerning what to offer in law school; how to allocate the school's teaching and research resources; what to interest the students in, and so on.

We don't lack theory, we have plenty of that, although some of our theories will change a great deal under the impact of information. What we clearly lack is the kind of research which this Institute does in its chosen field.

If you stop to realize it, there are very few institutes of this kind available to lawyers in any field. Yet the legal profession, has, I suppose, more fields than any other profession, since it straddles every human activity in one way or another. I just can't resist taking the opportunity to say this, even though it may seem somewhat irrelevant: think of the very small size of law school faculties and the virtual absence of the kind of research staff which one finds in the sciences, the physical sciences, and increasingly the social sciences in the universities.

In law school we are still relying primarily on faculty-student ratios which were built around the Socratic method, whereby one man can deal with a couple of hundred students simultaneously and keep them all worried about whether they are going to be called on next. It is very efficient, but if you try to make that man available for any significant portion of his time for research, or for directing somebody else's research, you immediately have an almost impossible man-power problem.

You have at the largest law schools—Harvard, for instance—faculties that number in size less than 100 people.

At our law school we have one of the larger faculties for a medium-sized law school—about 30 full-time professors for 500 students. Next door, in the medical school, for the same number of students, there are 155 full-time medical professors. This says something about the difference between the two professions in terms of approach to research.

I want to take my hat off to The George Washington University and to this Institute for making a very respectable showing in that otherwise dismal picture concerning our profession and for leading and showing us the way that has to be followed, I think, in many other areas.

I was also very much impressed by the quality of research as manifested in Oppie's remarks yesterday concerning peaceful coexistence of patents and antitrust. He said that he was glad to see that Mr. McLaren didn't indicate that the two fields were in absolutely hopeless conflict, although, as he said, that certainly doesn't mean all they need to do is to take tranquilizers and go to bed together.

I was quite impressed with the degree to which this empirical research on the bedroom habits of patent and antitrust has been carried. Professor Adelman referred again to this when he said, as I recall, that patents and antitrust make restless bedfellows, although he said something that half the audience missed, I think, in the laughter, when he added that that didn't mean that the night couldn't be quite fruitful. Actually, any night between patents and antitrust in the confines of the bedroom would be contrary to the laws of nature, because these two subjects, in Anglo-American legal history, derive from a single parent—the British Statute of Monopolies of 1623. I am impressed by this research on their bedroom relations but I am quite worried about it. I think they ought to stay a little farther apart than that.

Now, for the other areas of industrial property law—we already touched on trademarks this morning a little bit and, of course, the taxation discussion and international discussion cut broadly across the field.

This afternoon we are going to be getting into trade secrets and copyrights. Yesterday there was a good deal of discussion of know-how. These other areas, other than patents, I think it is fair to say, have never enjoyed quite the equal standing with antitrust that patents have had—that is, they seem to be in a more subservient position.

I throw that out as a possible suggested orientation for looking at the discussions this afternoon. These discussions are not primarily aimed at the antitrust problem, but antitrust is lurking in the background, as all of the speakers know. Antitrust policy, of course, heavily influences some of these areas.

The first thing to be discussed will be the problem of loss of trade secrets.

This will be approached first by one of the nation's leading antitrust lawyers, Edgar Barton, a partner in White & Case and recently Chairman of the Antitrust Section of the American Bar Association. He has been Chairman, also, of the New York State Bar Association's Antitrust Section.

A leading trial lawyer—all of us in the antitrust field know Ed and his outstanding work, not only as a practicing lawyer, but as a very

faithful contributor to informational and educational programs and institutes of this kind.

He, I understand, is going to speak to us about how to lose trade secrets.

Mr. Barton.

## 1. Loss of Trade Secrets

EDGAR E. BARTON

Thank you, Jim, for that very generous introduction.

I would first like to say that I second everything that Jim has said about this Institute. I think it is doing a very good job in a field that is in great need.

Today I have a restricted topic to talk about, that is, the trade secret law in the United States.

Trade secret law in the United States is the common law corollary of statutory patent law: the common law aspect of the dual system of American law designed to protect technological ideas. As such the scope of trade secret protection is restricted by the same considerations of policy that confine patent protection to a fixed number of years and to developments of demonstrable originality. Both trade secret and patent law reflect the tension between the objectives of maintaining a free market of ideas on the one hand, and assuring an innovator his rights to enjoy the competitive advantage of his innovation, on the other.

Trade secrets are not limited to a term of years and are not required to meet the same standard of novelty expected of patentable inventions, but trade secret protection is nevertheless in many respects both limited and tenuous. The trade secret owner is protected only against use of his secret by one who has discovered it by unfair means, either by theft, contract violation or by breach of some confidential relationship. He is not protected against anyone else who may independently use or copy his secret.

Moreover, trade secrets are easily lost, for they are protectible only

as long as they remain in some degree secret. Once a secret is either discovered independently, or wittingly or unwittingly revealed to someone not in a confidential relationship to the owner of the secret, protection ceases and the owner of the secret finds that he has lost all right to any exclusive use of his innovation. Disclosure may occur through the sale of a product embodying the secret, through publication of the idea in a trade or technical journal, through unprotected use in a foreign country, through disclosure upon issuance of a patent, or through seepage in the course of production or manufacture either to employees or to outsiders who learn of the secret without being under any confidential obligation to the owner of the secret.

I would like to discuss these limits; the ways in which trade secrets can be lost, intentionally and inadvertently.

(1) Measures to protect secrecy in manufacturing and production plant:

The very nature of the manufacturing process initially requires that a number of company employees have access to a trade secret, and courts do not require absolute secrecy—they require only reasonable measures to protect secrecy in the light of the circumstances surrounding a particular case.

Thus in *Space Aero Products* v. *R. E. Darling Co.* the Court of Appeals of the State of Maryland carefully balanced the measures taken to protect the secret design of Darling's oxygen breathing hoses against the circumstances of that case. There was evidence on behalf of the owner of the secret that the design had been kept secret from Darling's employees at least during the initial stages of development, that Darling's instruction guide issued for trainees had warned against disclosure and had announced that the design was considered a secret, that the blueprints for the design of the breathing hoses were kept in a locked box access to which was carefully regulated, and that the training of employees with access to the hose design was done in an area separate from the rest of the plant.

On the other hand there was evidence that Darling permitted tours of the plant and public demonstrations of hose assembly, that the production plant's garage doors to the street were frequently left open while hose was being assembled, and that the employees of the plant in general were never cautioned against any disclosure of the hose design. Despite this evidence the court concluded that in the light of the fact that Darling's plant was relatively isolated in a small community, and in the light of the fact that no one had yet succeeded in making hoses according to the Darling process, the precautions taken

to preserve secrecy would in these particular circumstances be considered adequate.

In other cases courts may in various circumstances require warning signs, restriction on outside visitors, maintenance of internal secrecy, control of the number of and qualifications of employees with access to a secret, coding of the names of ingredients, maintenance of plans and documents under lock, repeated admonitions to employees, the destruction of laboratory samples, trash, blueprints, and papers. It is in situations such as the case of *U.S. Plywood Corp.* v. *General Plywood Corp.* (1966), 370 F. 2d 500, that courts will refuse trade secret protection on the ground that plant secrecy has not been maintained. In that case employees were never warned against disclosure. The owner itself made a variety of disclosures to prospective licensees without seeking to impose an obligation of non-disclosure and no special measures were taken to preserve secrecy at the manufacturing plant itself.

(2) Loss through sale of product embodying trade secret:

Undoubtedly the most frequent loss of trade secrets occurs through the marketing, display or advertisement of a product embodying a secret.

Any secret which can be discerned upon examination and inspection of a product or advertisement is lost upon such marketing or advertisement. The same rule applies when such an article is put on display. But courts have distinguished between features of a product which can be ascertained from observation and those which are disclosed only upon disassembly, chemical analysis or technical investigation. Features revealed only upon analysis are frequently held to remain protectible.

In *Extrin Foods, Inc.* v. *Leighton* (Sup. Ct. 1952), 115 N.Y.S. 2d 429, a New York court held that a list of ingredients on the label of a marketed food product did not disclose the secret of the formula used in the manufacture of such product where the list of ingredients did not itemize either the percentages or amounts of each ingredient. Similarly, the classic case of *Tabor* v. *Hoffman,* 118 N.Y. 30 (1889), held that the marketing of a pump did not disclose and destroy the trade secret, defined as the patterns and molds used to manufacture the pump, inasmuch as the specifications of such molds and patterns could be discovered only through reverse engineering from the final product.

But the distinction between apparent features held disclosed upon marketing and those requiring analysis which are held to remain protectible, is neither very clearly defined nor very satisfactory. There are a number of cases finding protectible secrets in already marketed

products which candidly emphasize that the gravamen of trade secret recivert is breach of faith. In *Smith* v. *Dravo Corp.*, 203 F. 2d 369 (7th Cir. 1953), the court said: "Pennsylvania will not deny recovery merely because the design could have been obtained through inspection." Rather, the inquiry in that jurisdiction appears to be: How did defendant learn of plaintiff's design? And in *Franke* v. *Wiltschek,* 209 F. 2d 493 (2nd Cir. 1953), the court said:

> It matters not that defendants could have gained their knowledge from a study of plaintiffs' publicly marketed product. The fact is that they did not. Instead they gained it from plaintiffs via their confidential relationship and in so doing incurred duty not to use it to plaintiffs' detriment.

The language in these cases and in others suggests that the result in a trade secret case, even where information is publicly available, may depend upon whether the defendant has in fact acquired it through exploitation of a confidential relationship with the owner of the secret. These cases would emphasize that the core of the trade secret cause of action is the tort of unfair competition or unfair misappropriation of the property of another.

(3) Loss of trade secrets through patent issuance:

Although trade secret and patent law are in many respects complementary, being two parts of a system designed to encourage innovation, they are nevertheless in some respects potentially in conflict: Patent law offers complete protection for exclusive use of an innovation over a specified period of years in exchange for full public disclosure of the contents of such invention. Trade secret law, on the other hand, requires no disclosure and in fact depends upon the maintenance of secrecy, offering limited protection against unfair misappropriation only so long as an innovation remains confidential and secret.

The owner of an innovation must choose between patent and trade secret protection, for issuance of a patent requires disclosure which itself terminates any prior trade secret protection. Moreover, extended prior trade secret use will preclude later patent application. And issuance of a patent probably destroys all prior competing trade secret claims to the same innovation. A trade secret user may even be liable to a subsequent patentee for infringement.

Patent application—as opposed to actual patent issuance—will not defeat trade secret protection. And trade secrets as to improvements, combinations, uses or adaptations of patented inventions may survive and co-exist with such patents.

Since *Sears* and *Compco,* the Supreme Court unfair competition cases

have precluded a state from prohibiting the palming off of copies of an unpatented product. There have been additional suggestions that trade secret law may be preempted by federal patent law. Courts have so far, generally, rejected this suggestion on the ground that trade secret law is limited to protection from unfair misappropriation in violation of a contractual or confidential duty of nondisclosure.

Nonetheless, the relation of patents to trade secrets is one of the most interesting areas of current trade secret development.

Thank you. (Applause)

MODERATOR RAHL: Thank you very much, Ed, for that very concise and illuminating discussion of the law of trade secrets. Now a second speaker is going to discuss the specific problems of the loss of trade secrets which may occur when an ex-employee goes to work for a competitor.

Alan Y. Cole, who has had a distinguished career in the government and in practice, is going to speak to us.

After graduating from Yale Law School and clerking for Justice Jackson, he was a Special Assistant to the Attorney General in the Antitrust Division and during the Korean War was Assistant General Counsel for the Office of Defense Mobilization.

He is now a partner in Cole & Groner, in Washington, is co-author of Volume 2A of *Moore's Federal Practice,* author of numerous articles, and like Mr. Barton, has lectured and contributed a great deal in workshops and institutes and seminars.

I think that he is going to tell us how you can try to get back what you have lost through this route or at least how to get restitution of some sort.

Mr. Cole.

## ALAN Y. COLE

The problem that I will talk about fits rather neatly into the title, but in a peculiar way.

The title of Part B of the Third Section is called "Crises in Communication," and what I am about to describe is the crisis which develops once your trade secrets begin to be communicated to someone outside of your organization, generally by an ex-employee. That is

when there is a real crisis in communication, but it is precisely the other side of the coin to the crisis in communication that we have been hearing about, including the address by Chairman Hyde at luncheon.

The problem here is to keep the intelligence from moving; to do something about keeping it with you rather than with your competitor; and, if it should move into your competitors' hands through the employment of your former employees, to ascertain what you can do about it and how effective what you do will ultimately be.

Basic to this phase of trade secret problems are two competing concepts. Those two competing concepts manifest themselves in a refrain that runs through all of the cases and all of the litigation. And while the refinements of the law sometimes vary from state to state, the basic concepts remain the same. These are the right of the employee, as an individual, to advance, to move on, to get a better job; and the right of the employer, the company, to protect its own property, its own investment, its right to enjoy the fruits of its own research and development.

There have been a number of very well formulated statements of this refrain. One of the best was in a decision involving Du Pont and American Potash by the Delaware courts some few years ago and I would like to read just a piece of that (*E. I. duPont de Nemours and Co.* v. *American Potash and Chemical Corp.*, 200 A. 2d 428, 437 (Del. Superior Ct., 1964):

> Among the substantial and conflicting policies at play in this situation are the protection of employers' rights in their trade secrets on the one hand, versus the right of the individual to exploit his talents, use matters of general knowledge, and pursue his calling without undue hindrance from a prior employer on the other. The law recognizes that trade secrets are entitled to reasonable protection regardless of the suporting legal label. Reasonable legal protection tends to encourage, as here, substantial expenditures to find or improve ways and means of accomplishing commercial and industrial goals. The protection of such efforts when translated into trade secrets tends to encourage such efforts and the result is beneficial to the employer and presumably to society. However, it is hard to ask a man to work in a trade secret area and thereby circumscribe his possible future liberty of action and the use of his knowledge and skills which are inextricably interwoven with his knowledge of trade secrets.

I can read you many such excerpts, but our time is limited and I will not do that. If you ever read the decisions involving disputes concerning trade secrets and ex-employees, you will find that these are always the competing issues which the court is faced with balancing. This, incidentally, is another way of looking at an aspect of the subject

of this program, that is, "Crises in Communication." Or perhaps it is part of the larger crisis which comes from the economic, technological, and cultural changes in which we are presently participating and which we are presently viewing. There is a great deal of mobility among technological personnel at the present time. Engineers and scientists think nothing of moving from company to company. As a matter of fact, there is a new phenomenon in this area which has developed in the last decade, and that is not only the movement of technologists, scientists, and engineers, as heretofore, but movement in packs, in groups.

Many of you may recall that last August there was a major movement of skilled personnel between Fairchild and Motorola. This was very dramatic because it had an impact on the stock market prices and created a great discussion in the press. Believe me, this is going on throughout the economy, from company to company, and it creates a very serious crisis indeed with respect to the loss of trade secrets and the protection of trade secrets.

In order to protect your clients from the loss of trade secrets through this phenomenon, there are two contractual techniques that you can use and I suspect many of you, or all of you, use one or both of them. One of them is the old technique of a covenant not to compete. This is simply a limitation upon the employee's right, after he leaves your employ, to go into the field with a competitor, or to set up his own business in competition with yours. There are dangers in such a convenant, the principal one being that the courts will narrowly construe such restrictive covenants, and indeed will look to see whether a restrictive covenant was justified at all.

An example of that occurred some years ago. It is a very good example. When a rather inconsequential employee left the employ of an employer and went elsewhere, the previous employer brought an action to enforce a covenant not to compete. The Second Circuit, acknowledging that it was a perfectly valid agreement on the part of the employee, nevertheless declined to enforce it, and made this comment:

> This plaintiff has been unable to prove that it had lost more than the continued services [of this man] who was under no obligation to work for it for any definite time. It has proved no reasonable need for any protection under the restrictive covenant that he signed. It has failed, even to prove that the employee's services in any way differed from those ordinarily performed by a mechanical engineer who could be hired for $175 a month. *Hydraulic Press Mfg. Co.* v. *Lake Erie Engineering Corp.*, 132 F. 2d 403, 404 (C.A. 2, 1942).

Incidentally, the reference to $175 a month will show you how old that case is. (Laughter)

But the point of the decision is that you can have employees sign all of the covenants that you like. If it is not justified under the circumstances, if there is not something reasonably special or unique about the employee, the likelihood of enforceability is not great.

The other technique that you can use is to obtain from the employee his agreement to hold confidential those matters which are disclosed to him.

I think you will find your companies or clients are using that kind of agreement. It is generally combined with the standard form of employment agreement. It is a simple statement. I have one here and it is as follows:

> The Employee agrees . . . [n]ever to reveal to any person, unless authorized in writing to do so by the Corporation, any information concerning trade secrets of the Corporation, such as inventions, experimental developments, formulae, manufacturing and testing methods and processes, and other confidential information.

This kind of statement is frequently combined with an agreement to disclose inventions and the agreement to assist in obtaining patents for the company.

The reason the agreement is useful is because it makes explicit and removes all doubt, should that employee later take up employment with a competitor, that he has pledged not to reveal trade secrets.

If the trade secrets meet the criteria which Mr. Barton has just discussed, so that they are, in fact, entitled to protection, there will be no difficulty.

However, even without a written agreement such as the one I have just described, courts in the main will protect true trade secrets. In the absence of an express contract, the theories by which the courts do this vary. Some courts talk in terms of an implied agreement on the part of the employee to retain secrets in confidence because they are disclosed to him as part of the employment relationship. Some courts talk about a fiduciary relationship.

The basic concept, in any event, is that a person, or a company, is entitled to protection from the courts from the unlicensed disclosure or use of his trade secrets by an ex-employee.

In this regard, I want to raise one major caveat. That is, and to follow through with something which Mr. Barton mentioned, that the foundation of this entire subject rests in the common law.

This is the area of unfair competition, and it is based upon the common law; there is no federal law which covers this subject matter.

The consequence is that you can very easily get variations from state to state. You will find that the courts of Pennsylvania are considerably more rigorous than the courts of New Jersey, for example, in certain particulars. You cannot take it for granted that because something may have been successfully litigated somewhere else at some other time, you can rely upon it in a new situation in a new location. This field is governed by state law, and you must always keep that in mind. It is also a useful hedge for me, so that should you come back to me and say, "It wasn't like you said," I can say I was talking about the law of another state. (Laughter)

Now, what are the general legal considerations that ought to be kept in mind when you sense a situation in which an ex-employee, working for your competitor, is likely to leak valuable trade secrets?

First of all, many states now have criminal statutes which cover the taking of intangibles. Criminal prosecution is a theoretical possibility but, as a practical matter, it is not particularly useful. It is difficult to expect the sheriff in some county in a suburban area to go out and arrest somebody because he may have stolen a formula. Try to consider what this would mean in terms of the county politics. This is not an area which is particularly reliable. Again, the situation varies from state to state and criminal statutes may indeed prove a useful weapon in some cases.

There have been spectacular cases in England regarding the piracy of trade secrets under criminal laws there, but I don't find any such trend in the United States.

In consequence, for all practical purposes, one must rely in this country on civil proceedings. In the civil area, the principal form of relief, the really important one, is injunctive relief. Most of the cases arise in the context of an effort to obtain an injunction which will either preclude the employee from working with his new employer, or limit and restrict the new employment relationship so as to bar him from functioning in a particular field. The injunction is sought so that the trade secrets which your client, or company, may have developed at great cost and effort can be maintained.

Injunctive relief can work a severe hardship on the individual, however. There are situations in which an employee, having worked in a particular field and having worked on a particular process, would literally be unable to work elsewhere because there is nothing he can do which would not bring him into the forbidden area. This is the kind of problem which creates the most difficulty for the courts. They struggle with this dilemma and sometimes the results they reach are not very acceptable.

Incidentally, the cases in this area are similar to patent litigation. When you are talking about trade secrets, particularly in the more advanced technological areas, you have the problem of educating a judge who perhaps has no feel for all of the complexities and vagaries of the technological area with which you are dealing. I had this experience myself a little while back in a case involving the semiconductor field. It literally took a week and a half with slides, microscopes and huge charts, to explain to the judge what semiconductors were, what a transistor was, and how integrated circuits were made. We had a seemingly endless parade of engineers and experts testifying, and in that sense trade secret litigation is similar to the problems of patent litigation in the federal courts.

There is another consideration which you should keep in mind, and that is the force of speed. As soon as this kind of situation develops, as soon as you know that your ex-employee is with a competitor in a situation that can be harmful to you, you must move and move quickly. First of all, these are equitable proceedings, and you are asking for injunctive relief; if you delay you can be accused of laches. In addition, unless you proceed quickly, the harm that you can suffer can occur before you obtain any relief. The remedy you might then obtain might be reminiscent of the old saw of locking the barn door after the horse is out. The trick is to get there and get there fast.

The need for speed, in turn, creates certain curious problems for the litigating lawyers. One of them, and it is becoming more and more apparent in this kind of litigation, is the fact that courts are reluctant to grant preliminary injunctions. Normally, when you go into court in one of these situations you immediately move for a preliminary injunction. More and more, courts are reflecting a reluctance towards granting injunctions at the preliminary stage. One judge said to me: "You can't turn businesses on and off as you can the spigot in your sink. If I were to grant a preliminary injunction and if, after trial on the merits, I decide I should not grant permanent relief, what can we do?" The consequence is that judges tend to avoid the preliminary injunction procedure altogether and proceed instead with an immediate trial. This, then, means that you go into pre-trial discovery for four, or five, or six weeks successively, day in and day out, and then into a trial sometimes lasting two or three months. You can actually be in litigation for four or five months on one of these situations. This creates problems for the company and for the lawyer, but often it is the only sensible technique by which the courts can deal with this complex problem of trade secret disclosure.

There is one other aspect of this general subject which I would like

to call to your attention, and that is the obligation which rests upon the new employer in cases where an employee moves from one company to another and there is a possibility of the transfer of trade secret intelligence.

The new employer cannot look to the sky and say, "Well, I really don't know anything about that." The fact of the matter is that the courts place an obligation on the new employer, if he does not know, to darn well find out whether he will be acquiring and using someone else's trade secrets.

The classic situation of that kind involved Colgate when it hired an employee who was involved in the development of the foam shaving cream which, at that time, was quite new. (*Colgate-Palmolive Co.* v. *Carter Products,* 230 F. 2d 855 (C.A. 4, 1956); *cert. denied,* 352 U.S. 843.)

Some of the language from that court's decision will make the point. The court there noted that the fact that

> . . . Colgate did not enter into an open bargain with [the employee] to disclose this confidential information is no defense. Nor is it a defense that [the employee] upon his employment was entitled to use his skill in Colgate's interest. He was not entitled to give Colgate the benefit of business secrets which had been disclosed to him at [his former employer's] and Colgate could not close its eyes to facts which clearly indicated that this was what he was doing, even if he had not been employed for that express purpose. 230 F. 2d at 864.

After saying more about Colgate's liability, the court noted that

> . . . the basis of our decision that Colgate's action was wrongful is that Colgate knew, *or must have known by the exercise of fair business principles,* that the precise character of [this employee's] work . . . was, in all likelihood, covered by the agreement . . . not to divulge trade secrets. . . . (Emphasis added.)

In the *Colgate* case, it was not the employee who was enjoined and charged with damage, but it was Colgate, the new employer, which was held liable. In many cases, both the employee and the new employer are held liable.

Now, in closing, I can only say to you that competition in the technological era in which we live is becoming more and more intense daily. Cases in this area and litigation of this kind are more and more abundant today than ever before. I think that some of the older decisions will be re-examined. Those which arose in an era different from today have reached conclusions which seem very harsh in today's world and hold very little hope for companies who seek a remedy against an unfaithful ex-employee.

But, if a case is properly prepared, those processes which truly qualify

as trade secrets, as Mr. Barton described them, will still evoke protection from courts.

Thank you. (Applause)

MODERATOR RAHL: Thank you very much, Mr. Cole, for a very thoughtful discussion of this problem.

I have been impressed, as I suppose most of you are, also, with the nature of trade secret law which both Mr. Barton and Mr. Cole have brought out very effectively, and that is while there are a good many areas of defined protection, it not only varies from state to state but there are a great many kinds of uncertainty. If one reflects on that, in contrast to something as highly disciplined and articulated as the patent law, and also the much clearer systems of copyright and trademark, we find that in contrast we are leaving the trade secrets field to a pretty much catch-as-catch-can kind of common law system of protection.

One can take one of two choices—either say that that ought to be taken care of, that we ought to fill the gap with some sort of integrated system of protection, or, on the other hand, one can say—and this is my inclination—that there does not seem to be a major social demand or pressure for a more effective kind of protection than we are now giving. The common law system probably reflects just exactly that.

The decisions of the Supreme Court seem to me probably, although they don't necessarily do much damage to trade secrets, to manifest another piece of the disinclination on the part of our legal system to be particularly alert to expanding opportunities for protection at the common law level, as opposed to the choices legislatively made by Congress.

Finally, for a discussion of this subject from a different point of view and a different background, we have Dr. Irving H. Siegel, who is currently associated with W. E. Upjohn Institute for Employment Research. He has a wide background in government, foundation, and university research.

Prior to his present position, he served on the Research Council of the Research Analysis Corporation.

He has published in the fields of technology, economics and statistics.

He has been a study director for the Twentieth Century Fund and for the Johns Hopkins University Operations Research Office; and he has also been a member of the Senior Technical Staff on President

Eisenhower's Council of Economic Advisers and a consultant to IBM.

As a consultant to The PTC Research Institute, he has contributed frequently to its journal, *IDEA,* and has participated in all of its annual conferences—a real stalwart of the Institute, and somebody who can bring a different perspective, I think, to this problem. Dr. Siegel.

IRVING H. SIEGEL

Thank you, Mr. Chairman. Today I follow two legal experts, so it would be wise for me to try to remain an economist or to choose interdisciplinary ground. It would, indeed, feel uncomfortable to be a lion in a den of Daniels.

Accordingly, I shall draw on some of the interdisciplinary background material I have developed and on the work that Professor Harris and I have done at the Institute on trade secrets—also an interdisciplinary, rather than a strictly legal, study.

He and I have been interested in what we call "positive competition." This is not workable, but working, competition. It refers to an economic, political, and social climate that has fostered the expansion of output, the proliferation of productive activity, the multiplication of products and processes, and the generally effective operation of impersonal pricing mechanisms.

We use the description "working" competition because positive competition covers, say, 99 percent of the market-oriented behavior of our society. This is real, not theoretical behavior, and it is definitely legal or at least has not been held illegal. Furthermore, such behavior, with its complex and unpredictable interactions, has entailed remarkable technological progress and high standards of personal welfare and leisure. This much should be said whatever misgivings we may have about the functioning of our economic system and the shortcomings of our culture.

The study that Dr. Harris and I have made reflects a growing interest of companies in problems relating to trade secrets. I shall not attempt to present statistics that show this increasing concern. Indeed, I believe that the numbers would not adequately convey this concern.

Thus, we have noticed that not all of the responding companies share the view that trade secrets may become more difficult to manage.

One of the largest national food distributors even took the surprising position in a letter sent to us that it had *no* trade secrets! Could this sort of reply mean a desire to conceal from us and from other *outsiders* what the company regards as its true situation? Such a reply may well represent a part of a deliberate—or clumsy—"program" to guard actual and potential secrets that are great in number and diversity.

Amost any category of company information is eligible for formal treatment as a trade secret—not only technical information but financial and marketing data (e.g., lists of customers and sources of supply). These categories are represented in the replies received from many companies; but I am also impressed that respondents who are evidently aware of the problems of security of corporate information have not always taken special precautions with *employees.*

Could it be like the case of Edgar Allan Poe's "The Purloined Letter?" When employees are working daily with all kinds of sensitive data, some protection may be provided by the very failure of management to highlight certain types of information as being especially important to a company's life and health.

Thus, I suggest that companies may not only wish to discourage *outside* interest in potential trade secrets but also to avoid tempting *employees* to seek rewards from unethical conduct. (In a period of active merger by conglomeration, many a scrap of seemingly trivial information available to an insider or an outsider could acquire unusual significance for a company's future.) This hypothesis, I think, makes practical sense. At least, it would help me to explain the anomalies of company behavior as indicated in replies.

The search for "closure" is a psychological weakness of intellect. Maybe we should not assume that corporate leadership is truly "rational" and responding as it ought to the challenge of protecting information. This alternative hypothesis would say that, although companies are becoming more alert to the need for safeguarding data, they are still doing much less than they should do—and presumably will have to do.

As an economist, I am interested in trade secrets primarily as part of the whole spectrum of technical information. Too slowly, perhaps, has it become clear that information is an intangible stuff comparable to materials and energy. Information does provide the basis for a full range of economic activity; it can be produced, transformed, distributed, stored, retrieved, bought, and sold. Furthermore, most economic activity that involves materials or energy in the first instance may also have significant and valuable informational accompaniments.

Now, information that is deemed to be confidential in some sense also comprises an important "arc" of the whole technical spectrum. Strict definition here is vital; legal recognition and protectibility of information as a trade secret are not routinely accorded. Furthermore, much else than a trade secret is intended to be held confidential; indeed, written or verbal agreements and tacit understandings must necessarily regulate most employer-employee relations in the world of work.

Special difficulties, however, arise from the conditions of work and from worker mobility. Employees having a technological education and focus of interest frequently migrate from organization to organization, stripping attractive projects bare and then moving on. For such employees, it becomes increasingly difficult to distinguish what they own from what belongs to others, to square the precepts of the Espionage Act, of common law, and of decent conduct with the codes of their peers and the tempting opportunities of their jobs.

Positive competition depends heavily on the fulfillment of expectations about behavior, on spontaneous conformities rather than force, litigation, and vigilant policing. The various kinds of confidentiality need to be respected in general, without resort to external agencies or to unusual corrective action, if our society is to retain its character.

In the modern world of formal research and development activity, the alienation of technical information is common and easy. Most of this activity, furthermore, is supported by federal funds, and this circumstance itself may favor such alienation. In *Business Week* and other publications having a bias toward private enterprise, the dominance of federal research support often appears to be soft-pedalled. Besides, the chief governmental emphasis is on military, space, and nuclear objectives—and this emphasis must also be acknowledged despite civilian spin-offs.

Federal support may attenuate one's sense of property and propriety with regard to new processes, products, and materials emerging from research. Employees are often tempted to take technology from one employer to another, to duplicate for a price a "production function" in a new setting. (Recall the *Wohlgemuth-Goodrich* case.) More frequently, perhaps, employees leave a company to set up independent operations that may or may not become competitive. Sometimes, problems of military classification are involved as well as potential or actual violation of trade secrets, written or verbal agreements, and tacit understandings. Nevertheless, prosecution seems to be rare in comparison to one's impression of the volume of apparent violations.

But it is on the nation's campuses that we are witnessing the most

serious emerging challenge to the various concepts and degrees of confidentiality. Classified research for military and other governmental purposes is under special attack. Stanford, M.I.T., and other universities—including our own George Washington—have been obliged to sever connections with research organizations contributing in one way or another to our nation's defense posture. A panel appointed by M.I.T.'s president recently reported in favor of phasing out military research and increasing the share of the research portfolio devoted to more obvious social purposes. Ironically, the government is still regarded as the basic source of support for this new orientation (which, hopefully, includes arms control).

Discontent over the nation's active military involvement in Southeast Asia serves as an unfortunate stimulus to, and excuse for, the violation of laws, procedures, and rules that have given varying degrees of protection to information generated or used at universities. Documents are pilfered and destroyed; files are "liberated" and published. The participation of students in flagrant breaches of confidence and in outright lawlessness and the failure, unwillingness, or inability of school authorities to prosecute the wrongdoers—these suggest that companies will have a much harder time maintaining trade secrecy in the future.

Perhaps we are at the beginning of a period of extensive reconsideration of the scope and nature of governmentally sponsored research. If so, the repercussions may be profound and disappointing. Thus, the curtailment of military inquiries under extreme pressure could proceed at a much more rapid pace than the conversion of released resources to inquiries of a favored kind in the soft sciences. Furthermore, the very concept of military research accommodates considerable duplication and fractionation of effort—in the interest of building a broad national production capability and of easy mobilization. This emphasis on "distributed" rather than "absolute" information—on having people in many company laboratories learn, say, what Faraday and Sir Charles Grove knew more than a century ago—has had a significant impact on the degree of "civilian" industrial involvement. A reduction of military defense research, accordingly, could adversely and widely affect the established base of industrial patent generation.

Not only ideologically, but economically and politically also, the climate seems favorable for cutbacks of military research. Student unrest, dissatisfaction with escalating costs of various military projects, and inflation—all point toward economy in military research. I should not be surprised if what I have conjectured about the narrowing of the industrial base of patent production is soon felt.

Finally, I call to your attention an item in *Science,* the publication of the American Association for the Advancement of Science, February 21, 1969. This item is the report of a panel that had been set up to study "Secrets and Dissemination in Science and Technology." From this title, you will observe that the drafters of the report made a proper distinction between science and technology. Interestingly, they came out in favor of secrecy and other control of proprietary information in technology, even though they say "hands off" in the field of science. The practitioners among you will welcome this all-too-rare show of tolerance in the scientific community of the need to protect, by patents and other means, the private investments made in applied research.

This report is also interesting for its recognition, even in science, of a role for something called "privacy." Most of you may, upon reading the report, decide that a plea is being made for old-fashioned recognition of "privileged" information—limited secrecy, as a matter of courtesy or just plain decency. Anyway, it is clear and reassuring that scientists know that they themselves have problems of alienation of their products while work is in progress or while manuscripts are circulating among cronies and in so-called "invisible colleges." Yes, everybody may be honest enough although he is competing with you—except, of course, as Watson's recent best-seller has suggested, that ethics can be made of rubber if a Nobel prize is at stake.

In the panel report, it is recommended that courses in ethics be given to people destined for graduate school and the professions—for people having an ultimate interest in the application of knowledge. Curiously, such courses are not recommended for people who go into science! From what the report says, however, it is obvious that scientists themselves need exposure to ethical concepts.

All signs, in short, point to increasing difficulty in the protection of industrial trade secrets and other technical confidences in the future. Traditional attitudes toward property in general seem to be undergoing transformation. Violation of confidentiality with impunity, which is widely evident, itself encourages further disrespect for established rights to intellectual products. A protracted, indecisive, and undeclared war doubtless has much to do with the unhinging of conventional values. Anyway, as large numbers of young people proceed to industry from the campuses, stressful adjustment on both sides may be anticipated.

Thank you. (Applause)

## 2. Recent CATV Decisions

MODERATOR RAHL: Thank you, Dr. Siegel. I, of course, listened with great interest to your reflections on what is happening in the universities. It is not only bad for trade secrets, but some people think it is bad for the universities generally. I don't happen to be one of those. I think probably it is high time that our greatest universities get out of the habit of depending too much on contract research, and the annoyance with some of this comes not entirely from militant students. It also comes from others concerned, not so much with what the research is, as with the nature of the commitments of resources which universities make to that kind of research—research whose educational product is frequently too invisible for members of the university to recognize in it a proper use of resources that should be used for purposes that are central to the university's functioning.

As you know, we have rising voices within the universities contending that the universities simply cannot be expected to do this job for industry and for government. I must say I agree. I think that industry and government should stop relying on people whose primary mission is a different one from that of serving those other interests. Let them design and develop institutions of their own. This is not to mean any declaration of war at all, but I don't think we are getting the whole problem if we believe it is just caused by militant students.

I think this is a concern that is felt broadly throughout the universities. On the other hand, if the universities bail out of a good deal of this they are undoubtedly going to lose important support.

Departure of the kind of support that universities have received for scientific research on a contract basis may hurt all of us. So it is a pretty heavy dilemma.

We move now to the second kind of crisis in communication which is described here as involving recent CATV decisions.

I am going to introduce first, to speak on this subject, Mr. Herman W. Land, who is President of Herman W. Land and Associates in New York, a communications consultant firm. This firm specializes in communication studies and special projects in these areas for a wide variety of government and private institutions.

Mr. Land has been a member of Group W, the Westinghouse Broadcasting Company, Director of Public Relations and Special Projects for Corinthians, member of the editorial board of the *Television Quarterly,* publication of the National Academy of Television

Arts and Sciences and he is the author of a book, *What You Can Do About Drugs and Your Child,* which involves another kind of communication problem, I think.

It is a pleasure to introduce Mr. Land. (Applause)

## HERMAN W. LAND

Thank you. Mr. Chairman.

It is fashionable these days to talk of the "crisis in communications." But does it really exist? On all sides one sees an outpouring of ideas, techniques and grand plans to revolutionize the way we pass misinformation on to one another. There is a vast amount of brainpower and capital either plunging into this uncharted environment or preparing to do so. In other words, far from suffering crisis conditions, communications appears to be a healthy, vigorous, bustling youngster eager to make his mark in the world.

The crisis appears rather to be in the institutional framework in which communications functions: law and politics. It's hardly a secret that this framework is shaking rather badly.

As a layman who occasionally takes a look at the legislative scene, I find myself appalled by the enormous disparities between the time scales of technological development and its expression in Congressional law. Indeed, we seem to be regressing. As you know, the first major revision of the original copyright law passed by the First Congress in 1790 occurred in 1831—a span of 41 years. It was 39 years to the next revision in 1870 and another 39 until the revision of 1909. We are now in the 60th year since that event. Senator McClellan would like to get a revised bill through in this Congressional session. But as usual, there are hang-ups. Fifty years ago the controversial focus was on the phonograph. Today it is on CATV.

My hunch is that there will be solutions appearing soon, despite what seems to be a current impasse on the CATV question. Let's take a quick look at the most recent developments to see why.

In 1966, Judge Herlands of the District Court of New York upheld the right of the copyright owner to claim that CATV retransmission represented a "public performance for profit," within the meaning of

the copyright law. This was the *United Artists Television Fortnightly* case.

On June 17, 1968, the Supreme Court reversed this interpretation, holding that CATV retransmission of broadcast station signals did not constitute a "public performance for profit." That same month, however, the Court declared that the FCC possessed appropriate jurisdiction to regulate CATV. This was the *U.S.* v. *Southwestern Cable Co.* case.

On the one hand, the CATV operator now appeared free to go the way he wished in many instances. On the other hand, the way was opened for the FCC to undertake new regulation of the field. The FCC's concern with CATV does not stem from copyright considerations, obviously, but from considerations of communications policy. However, in its proposed rule-making and notice of inquiry of December 13, 1968, it moves right into the heart of the copyright controversy as it attempts to reconcile the interests of the cable operators and broadcasters. By requiring cable systems to obtain retransmission rights from stations, it is, in effect, calling for copyright clearance.

The FCC-proposed rules seek, on the one hand, to allow the CATV system to function without retransmission clearance within 35 miles of a market's central post office, but to require it to obtain permission from so-called imported stations. This, in effect, means that the system must deal with the copyright proprietors, since the stations do not own the broadcast material for the most part. In other than the top 100 markets, the FCC would permit retransmission without prior permission of imported stations, but would limit the right to the bringing in of what it considers a basic current minimum of services, that is, one station affiliated with each of the three commercial networks, one independent station, and educational stations, if there are no local or state objections from educational sources.

To no one's surprise the controversy began immediately. The FCC was charged with attempting to cripple the new industry before it could walk, and the agency stoutly claimed it was assisting the industry to grow, while protecting the over-the-air service of the public.

Lo and behold—just this past weekend, the millenium appeared to have arrived. A joint announcement was issued by the staffs of the National Association of Broadcasters and the National Community Television Association to the effect that an agreement had been reached. They were recommending to their respective boards that they cooperate in working toward appropriate amendments to the Copyright Act and the Communications Act. They urged that if no law was passed at this session the FCC should lend its assistance through its

regulatory procedures toward making progress possible until such time as bill could be passed.

The compromise calls for compulsory licensing of cable systems to carry all local TV signals; a statutory definition of "adequate" service as having available signals from three affiliated plus no more than three independent stations; copyright protection provisions geared to primary and secondary market definitions; it accepts the 35-mile post office proposal of the FCC as an appropriate geographical limitation; permits advertising only on one channel—that with the originating programs or automated services; and prohibits interconnection between systems except in special "contiguous" cases for purely local purposes.

I hear that on Monday there was a considerable flurry on the stock market, and that some people did very well. The hosannahs were premature. That very day new rumblings were being heard. On Tuesday morning, the press reported dissension spreading through broadcasting ranks. CBS was reported upset by the ban on interconnection. UHF operators were concerned as before, with the economic threat they feel is illicit in cable. Broadcasters with no interests in cable were said to feel that the agreement was dangerous.

An emergency meeting was called by the Association of Maximum Service Telecasters for this week in Chicago to consider the matter. And yesterday the press reported that Mr. Louis Nizer, counsel to about 85 percent of the producers and distributors of copyrighted film programs used on television has just sent a rather strong letter of protest to Senator John L. McClellan, chairman of the Senate subcommittee on patents, trademarks and copyrights. He is reported to have charged that his clients had not had any part in the tentative agreement. He "voiced resentment" that the two groups would presume to reach a private bargain over access to the property of his clients. He characterized the agreement as "repressive" in many instances—and said it re-opened questions already resolved in months of deliberations.

So, there we are. Is the business at a standstill once more? I suspect that the impasse is not quite what it seems. The fact that the staffs of these two associations were willing to arrive at agreement and propose it publicly, in the face of certain opposition from within the camps they represent, suggests that the pressure for change must be very great indeed. It seems to be in the very atmosphere of this city. In the first place, there is the developing cable business itself. Then there is the predictable impact on broadcast management thinking in those companies which feel they want to develop the cable

aspects of their operations. There are the legislators who represent all the divergent constituencies and who would like to see peace. And there is the growing strain of communications needs which expand in number and type almost daily, seeking their way in a world marked by highways laid down decades ago and no longer able to handle the increased and diversified traffic.

The appearance of the report of President Johnson's Task Force on Communications Policy within the past couple of weeks points to these pressures. Regardless of this Republican Administration's attitude to the work of its predecessor, it may be presumed that the problems that the report deals with will not go away. This Administration will have to grapple, as did the former, with the question of how to cope with the national resource of a spectrum so institutionalized as to render difficult, if not impossible, participation by new services bidding for entry.

Therefore, I think we can only look forward to continuing struggle among the forces contending for their place in the communications world, and probably continuing confusion and stalemate in the legislative arena, at least for a while. However, within the next few years there may well be a breakthrough of some sort. If, heretofore, opponents like the broadcasting and cable associations could talk publicly of "compatible" interests and suggest compromise instead of battle, then the prospects for progress are not quite so dim as this week's events would suggest.

My only question in regard to this entire question of CATV and the copyright quagmire at this stage is whether we will once again be so specific and limited in our social vision as to arrive at nothing more than a legislative solution which will be virtually obsolete before it has had much opportunity to produce its benefits. The copyright situation is now dominated by the cable-broadcasting struggle, in which cable appears as the new threatening the old, which itself was new only two decades ago. It seems to me that it would be a mistake to so conceive the solutions from the legal standpoint as to freeze the situation all over again.

While we are entranced by the current battle, let us not forget to keep one eye on that marvelous thing in the sky, the satellite. I agree with Chairman Hyde that it truly is the revolutionary communications instrument of our age. Technically, direct-to-home satellite transmission is already feasible. It is held back only by economic and political factors, by the fact that this country has a powerful vested system of communications that serves it well. One can see some of the future in

underdeveloped countries. It will be the satellite which provides the network system of India, for example.

Think for a moment what it means to be able to cover an entire country, or continent, with one signal, which can be picked up at any point and redistributed in some other form. Think of the worldwide pattern of coverage possible through a satellite system. Think of connecting satellite systems with cable systems with broadcast systems, of opening this electronic pathway complex to data transmission, information retrieval service, cross-country and country-to-country duplication of printed matter, and it becomes clear that we may be in for a period of institutional convulsion and confusion such as we have never seen.

As a layman among experts, I do not presume to make any suggestions on specific provisions for an amended copyright act. Perhaps it may be in order, though, to suggest one general course of action. Since we are in a period of rapid technological change, perhaps we should consider how to build into our system some means of preparing for such change. Most of the time, we take action when events and pressures forcibly bring these matters to our attention. However, the pace which technology sets no longer allows that luxury. I should like to suggest that a continuing body of legal experts be formed, under appropriate sponsorship, such as this Institute, which would have as its mission a continuing study of the impact of new technology on the copyright system. It would advise on the problems to be anticipated and point to possible revisions of the Act. In other words, a body of qualified individuals who, not themselves wedded to any technological status quo, will work toward a continuing revision process.

I remind you that the time scale has changed. Today it is cable, tomorrow this very cable may itself be obsolete, or so changed in form as to be profoundly altered in its nature. I am suggesting only that it may become socially necessary to introduce into the legal-legislative process some of the dynamism which is the hallmark of modern technology.

In short, 50 years is just too long to wait. Our society can no longer afford the luxury. Thank you. (Applause)

MODERATOR RAHL: Thank you very much, Mr. Land, for a very provocative statement.

It is my privilege to call upon the Deputy Register of Copyrights, at

this point, for additional views on the same subject, Mr. George D. Cary.

Mr. Cary is a George Washington University product, then went over to Georgetown University for his LL.M. degree.

In addition to his military service he has an excellent career as a government attorney, beginning with WPA, then the Justice Department and now the Copyright Office, in which he has held advancing ranks through General Counsel and now Deputy Register. He is an associate of The PTC Research Institute and lectures at George Washington.

I am looking forward, very much, to what he has to say. It is a pleasure to introduce Mr. Cary. (Applause)

## GEORGE D. CARY

Thank you Mr. Moderator.

After listening to that brilliant analysis and report by Mr. Land, I feel much like the baseball player who comes up to bat after someone has knocked a grand slam home run.

At least Mr. Land's presentation did set the stage for the few remarks I would like to make to you very briefly.

First of all I would like to indicate that any comments or views that I have are my own personal ones and not necessarily those of the Copyright Office.

Mr. Land mentioned the *Fortnightly* case. This, I think, is one of the two court decisions of the past year that I think we ought to take a look at in some way in a little more detail. The other is the *Southwestern Cable* case to which he also referred.

The *Fortnightly* case, in general, involved the question of whether the cable television system that received signals from television broadcasters within a limited mileage range and took the signals to the homes of their subscribers and permitted the subscribers to view the broadcast on their home receivers without the aid of any additional antenna—whether that system infringed the copyrights of proprietors of motion pictures shown on their stations.

Both the district court and the court of appeals felt the action of the CATV system did violate the right of the proprietors which is technically

called the "public performance for profit" right. The lower court in the *Fortnightly* case found that the infringement took place because of the technological process used to reproduce the performance. The test of infringement was based upon the substantiality of what the defendant did to bring about the reception of the material. The court of appeals took a little different tack although agreeing in general that there had been violation of the right but it simply stated that the defendant's acts created the result whereby all of its subscribers were able to view the program simultaneously.

Now, both of these courts, although taking a somewhat different outlook as to the reason for the infringement, based their results on two cases some 35 years ago, *Buck* v. *Jewell-LaSalle* and *Sesac* v. *New York Hotel Statler*. In both of these decisions the hotels received radio transmissions and enabled the guests in the hotel to receive the programs in their rooms. The courts held the hotels to have violated the exclusive right of the copyright proprietors.

The courts rejected the contention that since the transmission was simultaneous with the broadcast there was no infringement, holding that the control of the defendant over the reproduction could and did produce multiple infringements, and in the *Buck* case we find the origin of the multiple infringement doctrine.

The Supreme Court in the *Fortnightly* case completely disregarded the precedents relied upon by the lower courts and adopted what Justice Fortas termed a functional test of the meaning of the word "perform." The court reasoned that if it constituted an infringement, then the owner of an apartment house antenna would incur the same liability. Although I think this would not necessarily follow, I will pass it over since the actual basis of the decision seemed to be that the Court was prompted by a desire to promote the growth of CATV and that the huge amount of retroactive damages in the case would seriously stunt this growth. It was also aware that the Congress was working on a legislative solution and perhaps one could urge that its decision holding CATV completely free from copyright restrictions could serve as a stimulus to Congress to enact legislation resolving the issue. However, that was a year ago, so maybe that hope is ill advised.

Instead of considering whether the action of the cable system resulted in a performance within the meaning of the Copyright Act, the Court took a simplistic view by determining that the broadcast signals were replayed to the public and therefore should be available to anyone. It therefore held "Broadcasters perform. Viewers do not perform," and placed the cable systems on the same side of the line as the viewers.

Mr. Justice Fortas concluded that the majority had in effect overruled the *Jewell* case, although while the majority did not expressly do this, it did refer to it as a "questionable" decision. Justice Fortas felt that although the *Jewell* decision left something to be desired, it had been a rule which was followed for some 35 years and the Court in overruling it did not in any way substitute any clear guidelines to replace it. Therefore he took umbrage at the displacement of established business practices followed over the years. He made clear that the CATV problem was one for the Congress to decide, saying:

"Our ax being a rule of law, must cut straight, sharp and deep; and perhaps this is a situation that calls for compromise of theory and for the architectural improvisations which only legislation can accomplish."

Only a week prior to the decision in *Fortnightly,* the Court had handed down its decision in the *Southwestern Cable* case which was the case that upheld the jurisdiction of the Federal Communications to regulate CATV. It was based on the Communications Act of 1934, holding that the provisions of that title "apply to all interstate and foreign communication by wire or radio."

Not professing to be a communications lawyer, I hesitate to comment on the accuracy of the Court's opinion. However, it strikes me that the two decisions are legally poles apart and completely irreconcilable.

In *Southwestern Cable* the Court specifically held that CATV was a communications medium, whereas in *Fortnightly* it was considered nothing more than a passive antenna. Mr. Justice Harlan, who wrote the opinion in *Southwestern* indicated that the systems *receive, amplify, transmit* and *distribute* the television broadcast signal, which seems to my naive layman's point of view to constitute acts which clearly fall within the communications area. Justice Harlan then went on to say: "CATV systems, formerly no more than local auxiliaries to broadcasting, promise for the future to provide a national communications system, in which signals from selected broadcasting centers will be transmitted to metropolitan areas through the country."

That is a far cry from Mr. Justice Stewart's statement in *Fortnightly* that "CATV equipment is powerful and sophisticated, but the basic function the equipment serves is little different from that served by the equipment generally furnished by the television viewer."

Although I stated that these two cases appeared to be legally irreconcilable, the decisions can be related if they are viewed solely and simply as a socio-political judgment. The *Fortnightly* decision which was based in part upon a possible threat to a development of

CATV systems together with the feeling that the matter essentially was one for determination by the Congress is not inconsistent with permitting the FCC to regulate CATV during the interim period until Congress resolves the copyright issue.

I might add here that in 1967 the House did pass a copyright bill, and a very complex provision which was included in that bill to regulate CATV was stricken on the floor, due primarily to a conflict of jurisdiction between the House Judiciary Committee which reported the copyright bill and the Interstate and Foreign Commerce Committee which is the one charged with the regulation of FCC. So in striking this particular provision from the bill, it left in effect CATV completely liable for all copyright materials used.

Now, when it got to the Senate, the Senate delayed its decision. There has been little activity there since 1967, except for some hearings, because they were waiting on the outcome of the decision in the *Fortnightly* case.

As I said, that was a year ago and the Committee has, I think, since that time been hoping that the parties could get together and resolve a matter which was so complex as to cause most Senators and Congressmen, understandably, to throw up their hands.

As Mr. Land indicated to you, just within the last week the National Cable Television Association and the NAB reached an agreement. As he also pointed out to you the copyright proprietors have filed a rather strong protest and what happens now is anybody's guess. Perhaps I might add that the agreement that had been referred to has received approval of the NCTA Board. As far as the National Association of Broadcasters is concerned, it has been approved by the Executive Council but has not yet been approved by the full Board, which does not meet, I believe, until the 16th of this month.

Now, the question arises as to what is going to happen next. Certainly nothing is going to be done until after Senator McClellan finds what action is going to be taken by the NAB Board. He has made it clear on a number of occasions that he intends to get a copyright bill through this year. The *New York Times* story which reported the event did contain an interesting statement. Just so it won't be misquoted I am going to read you what the *Times* said. This is fair use, incidentally: "The Staff Director indicated that the basic structure of the agreement between broadcasters and cable operators is compatible with what this Committee has had in mind."

That would indicate that, perhaps, if the NAB Board ratifies this agreement, Senator McClellan could do one of two things. He could go ahead and begin to write a provision for CATV or he could listen to

the complaints of the proprietors and consider other alternatives. Since the proprietors are the motion picture companies and have a certain amount of influence in the Congress, perhaps we may now be entering another stage in delay in the copyright bill.

Undoubtedly, I think there are going to be some other problems that are going to have to be solved, perhaps not by Senator McClellan's Committee. I mention only a few of these:

(1) How does pay TV fit into this picture?

(2) Does the solution adversely affect the future use of the communication satellites to which Chairman Hyde and Mr. Land have already referred?

(3) I don't think we can neglect what the Antitrust Division will have to say about that agreement. Those of you who heard Mr. McLaren yesterday might receive the impression that they are going to look into it very carefully from the fact that at least they propose a number of actions in the patent licensing field.

(4) Will this approach render more difficult a national communications policy for the long-range future?

I think these are only a few of the questions that are going to have to be considered, as I say, not necessarily by Senator McClellan's Committee, but they certainly have to be decided by the Congress.

Like all the rest of us in this field, there is nothing we can do but simply wait, look forward and keep our fingers crossed and hope for the best and see what does happen.

Thank you very much. (Applause)

### 3. Extensive Inhouse Duplication

MODERATOR RAHL: Thank you very much, Mr. Cary.

As you can see, the ladies are circulating amongst the audience and our thought is to select some questions now, see to whom they are related, and possibly give some of the speakers who have been on the program earlier this afternoon a chance to respond to them.

We will continue with this collection now that you have this warning during the following discussion of Part 3, "Extensive Inhouse Duplication."

At the conclusion of that we will have such a question period as seems indicated.

On "Inhouse Duplication," which is a matter of great interest to a law professor, I will have the privilege of introducing Mr. Gerald L. Sophar, who is the Washington representative for the Institute of Scientific Information.

Mr. Sophar has been educated in New York—City College—Georgetown University and at the University of Hamburg, where he did graduate work in geo-politics and international law. He has had in addition to this an interesting military experience, a very wide business experience, the Microcard Corporation and the Jonker Corporation where he was Vice-President and Director. He also was Executive Director for the Committee to Investigate Copyright Problems and more recently, as I said, he is with the Institute of Scientific Information.

He has worked on a variety of interesting projects, including collaboration with the World Meteorological Organization in planning the micro-card data program for the International Geophysical Year. He conceived and promoted the *Wildlife Disease Journal* which was the first journal to be published on microfilm only. He has done a great many interesting things which I would like to take time to read but I think we should hear from him. Let me give you the title of one of his publications. This is a nonpublication, rather, entitled, "Copyright Stifles the Dissemination of Scientific Information."

Mr. Sophar. (Applause)

**GERALD J. SOPHAR**

The title of the paper that the Moderator referred to was a paper presented before the American Chemical Society in 1958. I have done a complete turnabout since then.

In 1958 I looked upon copyright as nothing but a technique for restricting the efficient dissemination of all kinds of scientific information. I don't think I will ever live it down but it is the way one gets into things.

It is wonderful to come on after a luncheon speaker because he always gives you an introduction. Commissioner Hyde suggested our

data processing, communications and switching have become so intermixed that they are now indistinguishable. He could have prefixed this statement with the phrase "our source data."

It is becoming increasingly apparent that the effectiveness of a copyright notice as a legal device to protect the inherent economic value in a work is rapidly being eroded. The rate of erosion is related in some direct ratio to the increased availability, simplicity of use, speed and decreasing cost of a multitude of copying devices now available. Obviously, nothing short of the voluntary destruction of existing copying machines by the owners of the devices and laws prohibiting the further manufacture of the machines will reverse the trend. Greater and more efficient use of these personalized printing plants will continue.

Because of a long term interest, I have come to know certain parts of copyright law as well as most members of the Bar. I only say this because it gives me the right as a dedicated amateur to talk to you on the subject of "Inhouse Duplication." It is my contention that certain areas of publishing: scientific journals, scholarly texts, reference works and similar vehicles that have been developed over the past century to transmit and disseminate controlled and evaluated knowledge are in serious economic danger unless some means are developed to provide compensation to the copyright owner for the use made of these works by extensive copying.

I had the rare pleasure of doing "my thing" from 1967 to 1968. As the Executive Director and the Principal Investigator of the Committee to Investigate Copyright Problems Affecting Communication in Science and Education, I was able to do a study, "The Determination of Legal Facts and Economic Guideposts with Respect to the Dissemination of Scientific and Educational Information as it is Affected by Copyright—A Status Report." The title is as pompous as the organization's name. My co-investigator was Dr. Laurence Heilprin of the University of Maryland. Partial support for this study came from the U.S. Office of Education.

To date, this is the only substantial investigation of its kind. We concentrated on an examination of the kinds of literature we believed were most subject to harmful infringement, i.e., scientific and technical, educational and similar periodicals.

Among other things, I learned some law. There is nothing in the law, despite the "fair use" principle, that allows single-copy reproduction of the whole or a part of a copyrighted work, except under the most trivial of situations. Yet, the "fair use" principle is used as the

legal authority and justification for a national pattern of professional and scholarly information dissemination programs.

The extent of this single-copy infringement is very large. The records and reports of 72 industrial, academic, public and governmental libraries were used as a data base for the study. Some of the significant data that resulted from this investigation follows:

(1) Copying of copyrighted material in the major resource libraries is primarily at the single-copy level—97 percent of the total.

(2) Limitation to the single copy of a part of a text or a journal article is economic rather than administrative.

(3) The bulk of U.S. copying is from serial literature: 10 to 1 by titles; 4 to 1 by exposures.

(4) More than 1 billion copyrighted pages were copied in 1967.

(5) Ninety percent of the materials copied are less than 10 years old; 85 percent less than 5 years old and 55-60 percent less than 1 year old.

(6) Ninety-nine percent of the journal articles copied are copied as a whole.

It is now generally known that extensive copying is done at public libraries, academic libraries and government libraries. These efforts are generally justified as falling within the area of "fair use," or if the use is not fair, the purpose of the infringement is for the good of education, research, medicine and every other good one can think of it. Besides, no profit is made by the copying institution which supposedly makes the copying less of an infringement—although there seems to be nothing in copyright law that says this is so.

Be this as it may as regards academic libraries, how much copying is done by industrial libraries? Here are some figures from this class of libraries:

| | | |
|---|---|---|
| Industrial Library A | — | 445,000 pages<br>(31,000 articles) |
| Industrial Library B | — | 115,000 pages<br>(11,000 articles) |
| Industrial Library C | — | 115,000 pages<br>(11,200 articles) |
| Industrial Library D | — | 139,000 pages |
| Industrial Library E | — | 100,000 pages |
| Industrial Library F | — | 260,000 pages<br>(25,000 articles) |

There has been no further investigation to date to examine the effect of this copying on the economic rights and market of the copyright holder. Still, it is stupid to ignore such large numbers. Something must be taking place.

For a number of decades now, it has been argued—not without merit—that journals are archaic. The theme of this argument is that the literature of science, technology and the humanities should be disseminated as separates. The concept is deceptively simple and I must admit I was strongly partisan for this idea not too long ago. If this thesis is correct, the reasoning goes, single-copy infringement will only hasten the demise of already sick journals. All of the mechanics are available to provide the user with just the material he needs and not force him to buy what he does not need. And it is certainly true that we overpay if we relate the cost of our journal purchases to the articles we actually read.

Unfortunately, I think that we should have to continue paying for the material we do not use. Marginal interest publications such as journals require the support of the noncover-to-cover reader as well as the support of those who read every article. I think if we purchased only according to use, all journals would have to stop publishing. I also believe that if every individual who subscribes to magazines should cut back and only purchase the magazines he actually reads, most magazines would stop publishing.

I have not strayed as far from the problem of copyright and copying as you may think. Concurrent with the development of copying devices, another kind of change has been occurring. This is the erratic, but continuing development of a variety of information services. Some are essentially retrospective services, others are alerting or current awareness services. These are nothing new to the attorney, but quite new to the other professions. Numerous studies indicate the greatest interest of scientists and engineers is in current awareness or alerting services, such as those published by my corporation. These services range from an array of publications issued weekly that reproduce the contents pages of journals related to a particular area of interest. For example, *CURRENT CONTENTS®/Life Sciences.*

Another kind of current awareness service goes under the general name of SDI (Selective Dissemination of Information). These services provide the subscriber with the title, author and source of articles which should interest the subscriber according to a profile describing his area of interest. The subscriber describes this interest by author, journal, key words, negative concepts, et cetera. Each week, these profiles are matched against a newly accessioned tape of titles or

descriptors and the identified profile-matching references are distributed to the subscriber.

The subscriber noting the titles, immediately uses his finer screen to select those titles he believes will really interest him. He then must have fulfillment and nothing less than the article will satisfy him. Thus, our newly developed, efficient information services begin to cause an infringement of the copyright right of the property owner. How is this article supplied? The user may have it available in a journal he subscribes to, but rarely examines cover to cover; it may be available at a library to which he has access or he may obtain a photo copy. The cycle is complete. Soon he discovers that the current awareness services give him broader coverage than he had had before and that he can obtain articles of interest as needed, at low cost, from a variety of resources.

These resources vary widely in their approach to the rights of the copyright owner. Most libraries will make single copies of any article; the Library of Congress will not copy anything without the permission of the copyright owner. On the other hand, the National Library of Medicine will copy any article from any journal to service its clientele. Industrial firms will supply any employee from its own library, while officially denying the practice.

It is interesting that despite the infringement suit brought by Williams and Wilkins against NLM now pending in the U.S. Court of Claims, NLM has chosen to issue a Request for Proposals for systems companies to bid on systems which will provide a more efficient way than is now in use to satisfy the 150,000 requests annually for journal articles from other libraries. Somehow the fact that another library is an intermediary makes the infringement less harmful to the copyright owner. It seems strange, almost arrogant, that HEW should allow one of its divisions to take such an action when its right to provide this service, free of royalty and without permission of the copyright owner, is in question in the courts.

There is a crisis in communication. It starts with the question of whether or not there is a value to that which is being communicated, whether by duplication or by transmission and display. I submit to this audience, that the duplication of a single article from a periodical, the duplication of a chapter from a text, the duplication of a table from a reference work is the act of major damage to a copyright owner. No one in his right mind will duplicate an entire issue of a journal, a complete book or a volume of a reference work as a single copy. If I were a publisher of any of the aforementioned classes of works, I think

I would add to the copyright notice the following permissions statement:

"Single copies may be made of this entire (issue, work or volume) by any user interested in any part of the work. Anything less will be considered an infringement."

The fact that anyone wishes to duplicate a part of the work, establishes its value. The user is entirely willing to pay for the duplication or transmission process. He is unwilling, for some unfathonable reason, to pay for the material copied.

We talk glibly about the value of knowledge, but we have inadequate mechanisms to assure compensation for it, and even less real belief in the idea that a dollar measure can be put on it because it represents hard work and investment.

A case in point:

We publish the *Science Citation Index*. It is to science what Shephards is to the law. The data base, however, is only seven years old. It consists of more than 12,000,000 references. The total base is stored on magnetic tape. A government agency is interested in doing certain studies with these data. They are willing to pay for the study for programming, for analysis, for statistical work, et cetera. They were outraged at the suggestion that payment be made for the data base itself, but that the agency do its own study. This despite the fact that the entire file was built from private funds and that it is the only one in existence.

I have some final items that may be of interest to you. They are some of the conclusions from the CICP study:

(1) Most library and information center managers believe that the making of a single copy of an article from a periodical or the chapter of a book, is not an infringement and it falls within the area of fair use.

Other prevalent beliefs are that no infringement of copyright occurs if no profit results from the transaction, if it is for the purpose of research or education, if it is published by a non-profit professional society or if the copyrighted work resulted from government supported research.

(2) The most commonly cited authority for these beliefs is the report of the Joint Libraries Committee on Fair Use in Photocopying: Photocopying Report on Single Copies, 1961.

(3) These beliefs have led to practices which have resulted in a large amount of single item or unit copying.

(4) The law in general despite the fair use principle prohibits

single-copy reproduction without the express permission of the copyright owner.

(5) For all practical purposes copyright law has neither a promotional nor a restrictive effect on single copy reproduction. Effective access or dissemination occurs regardless of copyright law in the areas of the social, natural and physical sciences, technology, general scholarship and education.

Then, there were two recommendations to these conclusions. This refers to the proposed National Commission under the proposed new copyright law:

(1) The proposed National Commission on New Technological Uses of Copyrighted Work should in the national interest closely examine and evaluate the single-copy phenomenon in the light of the constitutional clause, ". . . To promote the progress of Science and useful Arts by securing for limited Times to Authors and Inventors exclusive Right to their respective Writings and Discoveries." It should seek to determine if the instrument of copyright is effectively promoting progress in the areas of the social, natural and physical sciences, technology and education.

(2) The National Commission should investigate whether it is in the national interest to specifically permit the transferee to make a single copy of any part of a copyrighted work, and if so, to decide if this exemption to infringement should be limited to particular institutions, and particular conditions and purposes. If from its deliberations it should decide that the current practices of the transferee are contrary to the national interest, it should prepare a set of recommendations to the Congress as to how the law can be implemented and enforced.

Two other conclusions were:

(1) Fair use is not a useful effective guideline for making a priori judgments as to whether or not copies may be made of a part of a copyrighted work in a working environment. It provides no protection to the copyright owner because there is no effective control. It has become a euphemism for a single copyright.

(2) Budgets available, machine time, and available staff time control copying at the library and information center. In these environments neither the copyright law nor the fair use concept directly limits copying. There were no recommendations to the latter conclusions.

With this, I have used 16 minutes. Thank you, very much. (Applause)

MODERATOR RAHL: Mr. Cary, I think you have some comments on the subject.

MR. CARY: In the interest of speeding this up a little bit, I am going to be very short. But I think Mr. Sophar has graphically illustrated to us just what the so-called copying machine can do to certain areas of copyrighted material.

It reflects to me a conflict between private property rights and the public interest to be well informed.

In the field of education the teachers believe that they need the right to make copies of materials quickly without seeking permission because they have to teach it immediately to their students. The educators take the view in many instances that dissemination of information must be done rapidly and to all parties who need it and since the problem of trying to get copyright permission is just too slow, they cannot do it.

Mr. Sophar mentioned the National Library of Medicine. It is interesting to note that one of the leading medical periodical publishers has filed a copyright infringement action against the National Library just for this purpose, to try to settle the question of what can be copied by government agencies. This is now in the Court of Claims and judging from the usual speed over there it may take another two years before we have any guidance on this problem.

The doctrine that has normally been relied upon in this area to protect the copyright proprietors is the doctrine of fair use. This is a judicial doctrine developed by the courts over many years on an ad hoc basis. It is not in the law, and it never has been.

There is a provision in the new Bill that fair use principles shall be continued to be applied and there are included several standards which are really crystallizations of the court decisions. However, you do have other problems. Even assuming that libraries and educators and other research scholars, and so forth, have this fair use right, how far can you go? How can the copyright proprietor protect any interest when it is exceeded?

For example, in many universities it has been reported that the professors assign to their students the reading of articles from many books or periodicals and each student builds his own text book by ordering the reproductions from the local Xerox machine in the library. In the end an anthology has been created. Certainly this type of copying does have some effect on the textbook publishers. There is a problem there, too. After all, schools are some of the best customers of textbook publishers and sometimes you don't necessarily get into

legal conflicts with your own best customers. This is also true in other areas. But there is conflict and it is a difficult one to resolve.

I recently saw a statement of a librarian in a Connecticut chemical company which I think reflects the general attitude in the whole area and if you will permit me I will read it to you:

"There has been a sharp increase in the number of copies which we make. It is tremendous. Our lawyers say we just don't know where we stand on the copyright thing. What it amounts to is that we have instructions not to copy anything and, of course, we disregard them."

So, here you have the problem of the inhouse duplication. I don't know what the solution is, and the Bill doesn't purport to provide any enforcement machinery. After all, this is something that the copyright proprietor has to cope with.

But one publisher at least has indicated that in the future perhaps they may have to adopt a dual pricing system. If they sell the textbook to a university or college they will include in it a microfiche of the entire book and they will charge a higher price for that book but with that they will grant the permission for the university or the school to make as many copies for the school's purposes as they need from the microfiche. Then, if you or I buy a copy for our home we will pay a lesser price because we won't have reason to duplicate it. Perhaps this will be one way of approaching it.

Other people have suggested clearing houses to which copyright royalties can be paid on a blanket basis but these can be expensive to be set up and distribution can be difficult.

This is an area where some work is going to have to be done in the future and I don't intend to look at my cloudy crystal ball at this time.

Thank you.

MODERATOR RAHL: Thank you.

I personally think it is like trying to mop up the Mississippi River with a small sponge to go after this problem with a basically 18th century or 19th century law. I don't think there is going to be any solution along the line of the copyright which does not accommodate the practical aspects of the situation. It will be interesting to see what can be worked out.

*Panel Discussion and Question Period*

Now, we have a break here for the purpose of fielding some questions, and then we will continue, and I have been asked to point out to you that the program will end promptly at 5:30, or sooner, as has been previously announced.

First I am going to call on Mr. Barton and after him on Mr. Cole with respect to the trade secrets question.

MR. BARTON: I have two questions.

The first one is: "Can a manufacturer prevent copying from a product sold at large by one affixing a plate stating the product is sold and delivered and accepted in confidence and, two, by stamping instructions, repair and maintenance manuals with legends declaring that the information therein has been transmitted in confidence."

Both Mr. Cole and I think the answer to the question is no. This would not protect against the trade secret.

If the matter was, as I have said in my principal paper, given out to the public, he cannot, by affixing a legend to it, protect it.

MR. COLE: I have one question.

"If the possibility of a criminal prosecution is raised with a former employee to stop him from working for a competitor, is the possibility of an extortion charge to the employer for making such a threat present?"

First of all, I would like to clarify one thing and that is that there is never anything you can do to a former employee because he works for somebody else. That isn't the thing that makes the problem.

The problem is: Will he take with him and disclose trade secrets? So, even if you have a former employee who may have signed a covenant not to compete, you really can't stop him from working. You could sue him for damages but you can't stop him. The criminality here, if any, is the situation where an ex-employee purposely, willfully, and knowingly takes your trade secrets, documents, manuals which are confidential and takes them with him with the intention of either using them himself or going elsewhere and using them or conceivably selling them to somebody else. Depending on state law, you may have an equivalent of larceny. It is no different taking a secret or formula or process than if he takes money, if the statute so provides.

In that connection, if you threaten criminal prosecution of an employee doing those things, I don't see that there is any question of extortion or anything else involved, any more than if you threatened

anybody with a criminal prosecution for doing something which appears to be criminal.

MODERATOR RAHL: Thank you very much, Mr. Cole.

Mr. Barton passed to me a question which I will read.

"Public use, or sale, of an invention—for example, a product—is a statutory bar to an application for a patent for a method of planning such an article, even if the method of making it is not determinable from the article itself (I take it by reverse engineering). How do you harmonize this with the converse trade secrets doctrine where both trade secrets and patents have, as their common ground, the protection of intellectual property?"

I take it the reference is to Mr. Barton's statement concerning some cases which held that the trade secret protection was not lost, even when the article had been sold, where it was necessary to break it down by reverse engineering. My reaction is that I don't understand those trade secrets decisions that he referred to. I am familiar with them but I don't understand the reasoning. It seems to me if someone can break it down after it has been sold he ought to have every right to do so.

MODERATOR RAHL: We have one further question to be answered by Mr. Lightman.

MR. LIGHTMAN: The question was asked: "Has trademark licensing in Eastern European countries been successful?"

I can only answer this on the basis of my personal knowledge and I would say the answer is affirmative.

Available statistics show that there has been an increase in trademark filing by American firms in Eastern Europe, especially in the Soviet Union. I should also mention that the Institute has published in *IDEA* a number of articles on trademark laws and practices in Eastern Europe. It also has a guide sheet called: "What Do You Know About Patents, Trademarks and Copyrights in East-West Trade" that indexes these articles appearing in *IDEA*.

### 4. Protection of Computer Programs

MODERATOR RAHL: Thank you very much.

There will be another chance to field questions, I trust, at the end

of the speaking, which we will now resume.

We are going to Item Number 4: "The Protection of Computer Programs."

We have first, Mr. Paul G. Zurkowski, who is Executive Director of The Information Industry Association. Mr. Zurkowski is a lawyer and a graduate of the University of Wisconsin Law School and has had experience in private practice. He was legislative assistant to Congressman Kastenmeier; an attorney for the ICC, and currently as I said, Executive Director of Information Industry Association.

Let's see what he has to say about the protection of computer programs.

Mr. Zurkowski. (Applause)

**PAUL G. ZURKOWSKI**

That is a rather tentative note and I imagine that some of my comments may be a little tentative as well.

The subject of protecting computer programs falls under the category of crisis in communications apparently because computer programs don't fall very well under the divisions for protecting intellectual property.

I will briefly comment as to my understanding of how the copyright law is utilized to protect programs and I will make only passing reference to the patent situation in the hopes that subsequent members of this panel comment on that.

A couple of years ago the Copyright Office made an administrative determination to register programs and since that time approximately 200 programs have been registered. Yet, by and large when a program is marketed the tangible embodiment of those instructions to the computer carries a copyright notice.

This problem has turned up in government agency purchases of computer programs. The question has been raised whether it is appropriate to place a copyright notice on the tangible set of instructions which embody the program while restricting the use of the intangible magnetic tape geographically and to a particular use.

A legal strategy has been devised by which a copy of the document is transmitted to the purchaser of the program with the copyright notice

which serves the function of putting the purchaser on notice that if he violates the terms of agreement, the program proprietor may elect to prove that this transaction constituted publication and sue for infringement of that copyrighted work. On the other hand, the useful portion, the intangible instructions that are fed into the computer are not sold but are leased or transmitted under certain very restrictive terms, restricting, in some cases, the use of the program to a particular installation. This involves many government attorneys who seek to get as much for their computer program dollar as possible and negotiate over the terms of the agreement at length.

In the process, one of the key elements of the computer becomes saddled with a legal overhead and does not move as quickly as the information that it is designed to move would move. So the question is, is that a crisis in communications, and perhaps it is.

In the patent area, as you may know, there are a number of cases pending in the Court of Customs and Patent Appeals. This also raises a question as to whether the legal overhead of patenting a computer program can be sustained in a technology that demands movement of information. It is my contention that each technology creates its own environment and what is needed is the creation of a suitable workable environment for the new technologies. To do so we must evaluate the technology in its own terms. To create a suitable new environment for a new technology we must take a look at all of that technology.

A commercial prospective like that of the Information Industry Association is one that is useful in evaluating the technology.

Just how does the technology work in the marketplace; what is the market structure; what is the competition for the computer; what is the short and long term legal problem; antitrust among them?

Failure to evaluate technology in its own terms can create new problems. People engaged in a technology are often less able to understand and evaluate it in its own terms than might at first appear. This may seem contradictory but there are many examples shown throughout history. One of them is the automobile. It came to be known as the horseless carriage because it was built by people steeped in the technology of carriage making.

Similarly, in railroads, the original cars had complex spring mechanisms that were designed by stage coach manufacturers, designed to accommodate a vehicle on rough country roads.

A modern example, and related more closely to computer technology, is the microfilm industry. This is apparent in a single glance at the rectangular screen of the microphase reader. It is built to accommodate the normal page size, even though it could be enhanced by a

square TV type screen. What brought this home to me was a recent visit to a National Microfilm Association meeting in Boston when I took a look at the process of applying computers to creating microforms. Even when the process is started fresh in a computer memory, the product comes out in the rectangular shape of a printed page. I believe this is a central problem, the facets of which we encounter when trying to gain protection for programs.

I do not feel completely competent to argue whether a particular program can be patented or to what extent copyrighting a program can help in marketing it. I do want to emphasize that the case-by-case procedure leads us into the woods of all technologies rather than to the hilltop where we can see what tomorrow looks like.

Let me suggest three or four rather rough ideas and hope they suggest some pointers.

First: The Constitution speaks about promoting science and useful arts by securing to authors and inventors certain limited rights. It doesn't say anything about protecting the blood, sweat and tears that it takes to distribute published works. But it is those efforts that are protected and made possible by the copyright law. Can that be effective in protecting the blood, sweat and tears it takes to market and service a computer program? Basically I don't think it can because the copyright law was created for and tied to an earlier technology and offers little help to the problems of protecting information products that themselves facilitate copying.

The basic purpose of intellectual property laws is to promote economic use of writings and inventions by trading limited exclusive rights for disclosure to the public. Today commerce in information is taking place outside the copyright laws or in some cases with only limited and tentative reliance on protection of copyrights. In most cases proprietors in large data banks are leasing them.

When we begin to evaluate even more settled doctrines perhaps the complete disclosure we relied on in the past is first on the list to be reevaluated. This is particularly true of computer programs. Perhaps some disclosure, some form of limited disclosure, is adequate to serve an awareness service as to what programs are available; where and on what terms they can be obtained, with no prohibition against developing a similar program with your own blood, sweat and tears if that is most economical for you.

Second: The fact that legal strategy can be devised, including affixing of a copyright notice and devising restrictions on use of intangible instructions, is well and good for this period. But the part of the crisis in communications involving programs is the legal over-

head expenses in the process of marketing them. It takes a great deal of legal work. To a businessman marketing information, these costs reduce the competitiveness of the technology.

Third: Programs cannot be treated generically. Application programs are one thing and may be subject to certain treatment while other programs are basically different.

Fourth: The environment of the technology also includes the industry in it. What is the economic effect of a tentative solution? Does it include exclusive rights that may compound the concentration of power already existing in the environment?

One other way of looking at the new technology and its environment is essentially a procedural matter. It was brought home to me when I was trying to make the point about the fact that in computer storage of full text material there is a question of the integrity of the text transmitted between two terminals.

This point becomes clear in relation to the problems of transmitting commercial credit data between credit bureaus. Suddenly it is apparent to everyone who was exposed to having his credit records transmitted between computers that there is a problem of integrity of text.

In an information system transmitting medical information to assist in medical treatment, it is quite possible that further legal complications could arise out of that integrity-of-text problem. I would also suggest in evaluating programs that other legal aspects of programs be examined. At the moment, for example, the Internal Revenue Service is exploring the question as to whether programs should be capitalized or expensed, how they should be treated for tax purposes. There is a body of literature being developed on that subject.

Which are they to be: expenses or capitalization; are some to be expensed and others capitalized; which-is-which and why? These questions suggest that there is an analysis going on as to the nature of programs that is important for a new technology to undergo.

Let me emphasize in conclusion one point: Computer programs are essentially information products. These are economic goods. What we must be concerned with is: How shall we create marketing structures for those commodities that promote this use, availability and application of these goods to the information workload of society?

In many respects the social side effects of the course we choose are significant as the resolution of the problem. If the answer is to be found at all it is not likely to be found in examination of the existing law but in examination of the technology and the environment the technology is creating. Most important, it is to be evaluated in its real economic and commercial setting. These efforts exploring this subject

are important first steps in a problem that is going to be with us for a while. (Applause)

MODERATOR RAHL: Thank you very much.

Mr. Cary, do you have a comment or two on this?

MR. CARY: Yes.

I remember in school, there was a famous sentence that we all had to learn: All Gaul is divided into three parts. I am beginning to think that I have been divided something like Gaul. I apologize for having to appear before you so many times here today but I didn't make up the program.

The computer program problem has been widely discussed from various angles—trade secrets, patents, copyrights. I am sure most of you are aware of the problems of patenting. I, of course, wouldn't dare get into that. The trade secret aspects of protecting programs from what we heard today may not be as effective as one might wish. I recall not long ago a statement by Dr. Land of Polaroid fame, which I believe termed this as a "cesspool of secrecy." So that leaves us for the moment at least to discuss briefly the matter of copyrighting programs.

Back in 1964 the Copyright Office, after extensive study, decided under present law that computer programs were copyrightable. I would like briefly to touch upon some other aspects of the computer program problem.

First of all, why should anyone want to copyright a computer program: Well, as I am sure many of you know, computer programs can be very expensive to manufacture and produce. Some of them run into six figures. So, when you have a product that is going to cost you that much, you obviously don't want everybody and his brother to be using it if you can find some way to protect it.

The hardware people, the computer manufacturers, have to a great extent shown very little interest in obtaining protection for the programs and I suppose this is because they consider this a sales promotion problem rather than a protection problem. Most of the protection demands have come from the software companies or service bureaus. For example, the product that the service bureaus sell is primarily the program. So they are interested in that.

Just to give you an indication of the growth of the software industry, it may be noted that in 1957 there were 111 manufacturing firms of digital computers and 120 software houses. The prediction is made that by 1985 there will be only 10 hardware manufacturers, 5,000

computer services organizations, 1,000 consulting service organizations and 1,000 software suppliers. This somewhat resembles to me the tail wagging the dog. But it does give you some indication of the tremendous growth of the software industry and this, of course, naturally leads to some desire to achieve protection.

Assuming the program suppliers get protection under the copyright law, what kind of protection will they get?

Well, first of all I think they will get the protection which the present law gives against copying. If anyone made a reproduction, that would be considered an infringement. Now, this does not, of course, prevent anyone else from sitting down and working out the same problem and producing it on his own, as might be the case if he had a patent on it.

Copyright originality doesn't necessarily mean novelty at all. It means only that it is original to the producer, something of his very own. To give you a rather vivid example of how two people might come up with the same thing and still be able to achieve copyright, let me read you a short quotation from Judge Hand in the *Sheldon* case many years ago.

"Borrowed the work must indeed not be, for a plagiarist is not himself protanto and 'author'; but if by some magic a man who had never known it were to compose a new Keats' Ode on a Grecian Urn he would be an 'author', and, if he copyrighted it, others might not copy that poem, although they might copy Keats'."

You hear frequently the argument that the computer program is essentially nothing more than a mathematical formulation and if you have essentially the same plan of action it is going to look alike so how can you protect one against the other? I think Judge Hand answered that. If you and your programmers produce a given program, even though it may look pretty much in the final form like one produced by another, you still could benefit if you had a copyright and prevent anyone that you leased that program to from infringing.

On occasion we have heard an objection voiced to copyrighting a program because this might give, in fact, control of the operation of industrial processes, such as a program to control the manufacture of iron, for example.

If precedent has any bearing I seriously doubt such a dire result. The Supreme Court has made it clear that methods of operation are not protected by copyright. Let me read you a short quote from the old case of *Baker* v. *Selden*:

> The copyright of a work on mathematical science cannot give to the author an exclusive right to the methods of operation which he propounds, or to the diagrams which he employs to explain them, so as to prevent an engineer from using them whenever occasion requires. The very object of publishing a book on science or the useful arts is to communicate to the world the useful knowledge it contains. But this object would be frustrated if the knowledge could not be used without incurring the guilt of piracy of the book. And where the art it teaches cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art and given therewith to the public; not given for the purpose of publication in other works explanatory of the art, but for the purpose of practical application.

In short, should someone make use of your copyrighted program in his computer, such use being the purpose for which the program was created, that would not constitute an infringement. But direct replication of your program would seem to constitute a copying under the law and so the usual remedies of the law would be available to you.

Now, the question might arise in your minds, that is all very well and good but what is the legal status of copyrighting programs under the present law? In all candor I must point out that there has been no single litigated case and we don't know. However, the Revision Bill which is presently being considered in the Senate, together with the report of the House Committee, makes it crystal clear that computer programs will be subject to copyright protection if that bill ever becomes law.

I thank you. (Applause)

MODERATOR RAHL: Thank you.

I would like to call now on Mr. Herbert R. Koller, who is a Principal Information Scientist for Leasco Systems and Research Corporation. He serves as a consultant in the areas of technical information storage and retrieval systems with the emphasis on patent information systems. He is a lawyer and graduate of Western Reserve and Washington College of Law in American University and—well, has engaged in quite a lot of activities.

I think the thing to do, however, in view of the time is to call on Mr. Koller—which I do with great pleasure—and see what he says about this same subject. (Applause)

Thank you, Mr. Chairman.

In view of the hour I am going to make my report as brief as possible. Primarily I am going to report on on-going research projects at the Institute.

There are a great many problems involved in this whole area of legal protection for computer software. Many of them reside in the nature of the subject itself. It is not clear whether we have before us a new species of human creation, a new form of invention, by which I mean that it is not clear whether computer software inventions fall, for example, within any of the statutory clauses of patentable subject matter. Further, as Mr. Cary has indicated, it is not clear how the courts will treat, for example, infringement of copyrighted computer programs.

The project that I am working on has its genesis in the Report of the President's Commission on the Patent System. You will recall that they recommended very strongly that computer program inventions be excluded from coverage under the patent law. In the patent revision bills introduced into the last Congress, the original, Administration-sponsored bills embodied the recommendation of the Commission. As Mr. Zurkowski has noted, there are cases now pending and before the courts appealing decisions of the Patent Office in refusing to allow patents on software inventions.

The project that I am referring to actually has two phases, the first one of which is completed and was reported in the Winter 1968-69 issue of *IDEA*. I would like to report very briefly on the contents of that article. If you are interested further I suggest that you read it.

The paper summarizes the status of the current patent, trade secret, and copyright treatment of software inventions. It explores the controversial legal and economic issues which have been so far raised. It spells out some of the possible consequences for various segments of the computer industry. I would like to call attention to some of the issues which have been raised and which have been argued widely in the past.

First of all, there is no general agreement on what is meant by

software and we have heard at least two definitions of what a program is or what software is.

Some people point out that a computer program, i.e. software, can always be embodied as actual hardware. Very often the decision on whether to create hardware or software is strictly an economic one.

Another problem area is one that I have already covered, that is whether inventions within this area fall within any of the statutory clauses of patentable inventions.

A corollary to this is if one has a computer program invention, how should it be claimed? Should it be claimed as a process, or as a machine as a means for accomplishing some result, or should a claim be sought for a program instruction listing? As far as I know, no one has attempted to obtain the last named form of claim. It has also been questioned whether patents have not, in fact, already been issued either inadvertently, or otherwise, for software inventions.

The trade publications have claimed that two or three different patents have been issued for software inventions. It is not clear from a reading of the cases that this is actually the fact.

Another problem area that is very important for the Patent Office is whether it is possible to provide adequate means for classifying, searching and examining applications in the area of software inventions so that patents issued as a result of the examination process would carry the same presumptions of validity as do inventions in other arts.

There is also a general question of whether or not any of the alternative forms of protection which have been proposed would be desirable. Then, there is another whole series of questions which go to the socio-economic aspects of the problem, rather than to the legal aspects. For example, there are some antitrust and monopoly considerations based on the process of "bundling" the price of the software and hardware services provided. Several suits now pending largely center about this single pricing concept. The question has also been raised as to whether the patent system and the copyright system of the United States can accommodate to new technologies which are all pervasive, as is the development of the computer.

Also, there are some possible important international problems. The first drafts of the proposed Patent Cooperation Treaty excluded software inventions from the coverage of PCT. It is believed that the third draft, which is about to be published shortly, will not contain such an exclusion. The probability that the proposed European patent system (the socalled Common Market Patent) will also address this

issue means that the whole international situation is very much wide open.

The new phase of the study that I am engaged in is going off in somewhat different directions. We are hoping to come up with some new alternative solutions, some new suggestions for legal protection for computer software inventions. What we plan to do is survey the patent offices of at least the major countries to determine what their current laws and practices are and how they intend to treat this kind of problem in the future. We know, for example, that at least some of the countries considering this problem have developed definitive policies and procedures. We also intend to solicit advice and opinions from the trade associations, professional societies and other classes of users who, by and large, have not expressed their views before the Congressional committees conducting hearings on patent revision bills.

We are also looking forward to the outcome of an independent study into alternative forms of protection for this class of invention which is under way in the U.S. Patent Office.

We hope that these studies will progress sufficiently so that we can publish another report this fall.

Thank you. (Applause)

## Part C—Toward International Arrangements

MODERATOR RAHL: I think I read in the paper the other day that IBM has decided to unbundle. Perhaps it is not going to let go of everything, though. In any case, we move now to the last topic, that of International Arrangements.

I am glad to introduce Mr. Osann.

**ROBERT OSANN**

Thank you very much.

As Secretary Braderman indicated earlier, these are revolutionary times. We are today involved in a most significant phase of interna-

tional activity in the field of intellectual property, perhaps more so than at any time in the past. With the United States Senate now considering ratification of the proposed international arrangements which resulted from the Stockholm Conference of 1967, that is, creation of the World Intellectual Property Organization (WIPO) and revision of the Paris Convention; with continued negotiations on the proposed Patent Cooperation Treaty; renewed interest in a Common Market Patent System; and discussion of revision of the Madrid Arrangement; we are entering a period of great potential change.

There are other significant changes which bear on the subject of international arrangements.

On January 1, 1968 new patent laws became effective in Denmark, Finland, Norway and Sweden, harmonizing the laws of those countries as a first step toward the development of a regional or Nordic Patent System. Each law contains provisions whereby a single application could result in the grant of national patents in all the four countries involved. These provisions will become operable only upon the consummation of a special agreement among the countries, which is expected to take some time. The most recent indications are that implementation of the laws to make the Nordic Patent System effective will not take place until perhaps around January of 1972.

There is also renewed interest in the establishment of a Common Market Patent System, including a proposal to extend the search and examination facilities of a central patent office to other European countries. This would involve two Conventions: the first establishing a single Common Market Patent covering the EEC; and the second, a Common search and examination for the other European countries which would result in national patents in those countries. So far, the proposal would continue to deny accessibility to U.S. nationals. However, if such a system were to become effective, it is doubtful that the proposed Patent Cooperation Treaty would have much appeal to Europeans.

Over the last few years, we have been faced with a rash of new patent laws in foreign countries. Apart from the Scandinavian countries, new laws recently became effective in Holland, Ireland, Brazil, Israel, Germany, France and Bulgaria, to mention a few. New laws are currently under consideration in Australia, Japan and other countries.

Many of these countries, specifically Germany, France and Holland, have adopted a system of deferred examination, and others such as Australia, Brazil, Hungary and Japan are considering such systems in view of the substantial examination backlogs faced by the patent offices of these countries.

It has been clear for some time that our exploding technology has created a serious challenge to the patent systems of the world. With each day, the flow of technology creates increased demands on the ability of the patent offices to conduct a thorough search and examination of patent applications, which is needed to preserve confidence in the strength and validity of patents which are granted. The magnitude of the problem was recently highlighted in the *Journal of Business Education,* where it was indicated that if a chemist or physicist sat down and read the scientific journals in his field as his full-time job, at the end of a year he would be three months behind in his reading. This, by the way, is presumably without studying the patent literature.

How is this problem being solved? The United States Patent Office has made commendable efforts in several areas. Automated searching, cooperation with other patent offices and inviting applicants to submit voluntarily prior art of which they are aware, are a few worthwhile steps which have been taken. However, I doubt that the problem can be solved without the expenditure of considerably more money than the Patent Office has available to it and without much more extensive international cooperation than has thus far occurred.

We are now entering the era of "Passing the Buck," also entitled, "Who is going to do the search?"

Canada has had for many years a rule (Rule 39) under which the examiner may require the applicant to furnish particulars of corresponding applications filed in other countries, including the prior art cited against such applications. Where a Canadian application is based upon a United States application, it has become routine for the Canadian examiner to request this information. This has no doubt cut down considerably on the search effort in Canada, although Canadian examiners still on occasion cite other prior art.

The Dutch Patent Law (Sec. 22A, Sub. 2) requires that the applicant file a Declaration indicating the countries and dates on which corresponding applications were filed prior to the Dutch application, and an authorization empowering the Patent Office to make inquiries in such countries.

The new German Patent Law, which became effective less than a year ago, also empowers the Patent Office (Section 26, Sub. 4) to require the applicant to inform the Office of corresponding applications in other countries and any printed citations made against such applications. Only recently the German Patent Office has started to call for this information.

Each of the new Scandinavian patent laws provides that the appli-

cant may be required by the Patent Office to report the results of examinations in other countries where he previously filed on the same invention. Under the rules of practice copies of official actions may be called for. The point at which the information is requested by the Scandinavian countries has varied from one to the other, some, however, requiring it shortly after filing—a time when there is usually little to report in the way of examination results elsewhere. There is apparently no restriction on the number of times the information can be requested, and in fact some examiners are repeating the requests, particularly when no prior art was reported in response to the first request. The penalty for failure to comply with the request is abandonment of the application.

While the implementation of these requirements is still in the formative stage, it appears that at present it is sufficient in the Scandinavian countries to provide copies of official actions issued in the country from which priority is claimed, for example, the United States. It is possible that Sweden may relieve the applicant of this burden to some extent, in view of a recent agreement between Sweden and the United States to exchange search results. Thus, examination in Sweden may be suspended until the Swedish Patent Office has received from the United States Patent Office the results of the novelty search conducted in the United States. Upon receipt of this information the Swedish Patent Office would resume examination, supplemented by a Swedish search of Scandinavian patents, which are usually not considered by the U.S. Patent Office.

The burden placed on applicants in notifying the growing number of foreign patent offices of the results of examination in other countries could become staggering in a multiple country filing. What does the applicant do and what can he do if he is repeatedly asked in each country to keep that country abreast of what occurred in every other country where the same application was filed? Not only may he be asked to furnish copies of official actions or lists of references, but also, it could well develop that he will be required to discuss all prior art cited the world over, no matter how irrelevant.

In prosecuting foreign patent applications one must now consider the prospect of making copies of all official sections and arguments available in any country demanding the same under penalty of forfeiture of the application. If special records for transmission abroad are not maintained, an extensive review of all files on a particular invention must be made to answer each official action and assure that a true statement of the current position is given at the time of demand. So far, there appears to have been little consideration given to the

possible consequences of providing a foreign patent office with incomplete or incorrect information. It is not at all clear whether circumstances might exist under which an applicant could be charged with fraud upon the patent office and thereby later subject the patent to an attack on its validity.

I raise this problem not only because it is a most serious one but particularly because it has a decided bearing on proposed international arrangements currently under consideration. I refer to the proposed Patent Cooperation Treaty (PCT).

According to BIRPI the proposed Treaty has two principal aims:

(1) To save effort—time, work and money—both for the applicant and the patent offices in cases where patents are sought for the same invention in a number of countries; and

(2) To increase the likelihood of issuing strong patents in countries not having all of the facilities necessary for a thorough search and examination.

Under PCT a so-called international application would be filed with a national patent office of one of the contracting states, also known as the National Receiving Office. This office would transmit a search copy to one of the several international searching authorities as prescribed under the Treaty. There are presently contemplated five international searching authorities, namely the United States, Germany, Japan and Russian patent offices and the International Patent Institute at The Hague (otherwise known as the IIB).

The International Searching Authority would be charged with conducting a so-called international search and the search report would be made available to all countries designated by the applicant for protection. Although centralized searching is possible under the Treaty, it is clear that the present intention is to have several searching authorities, making use of existing search facilities.

The Treaty and Rules propose to set up standards and procedures to attempt to achieve uniformity among the various searching authorities, but it is here that I find great difficulty in accepting the theory that a uniform search of a truly international nature will result. I do not see how you can obtain an international search by filing the application through a different door of a national patent office and pasting a label marked "International Search" on the search report. The approach taken by the U. S. examiner cannot help but vary considerably from that of the German examiner due to basic ingrained concepts which stem from differences in the national laws and procedures. The documentation available or consulted by the examin-

ers of different countries varies considerably, as does their proficiency in foreign languages.

Those who are daily engaged in the prosecution of foreign patent applications are acutely aware that it is commonplace for examiners in different countries to cite different but pertinent prior art. While there is indeed a duplication of search effort, there is very often not a serious duplication in search result. There is little doubt therefore—and I think that this has been made clear by our own Patent Office representatives—that the PCT search would have to be extended by the national patent offices if the stronger patents which the Treaty seeks are to be obtained.

The establishment of a centralized searching authority under PCT has been deliberated but apparently rejected as impractical at this time. Yet, unless efforts are promptly channeled in that direction, the fundamental and most important objectives of PCT will not be attained because PCT will not provide a truly international search.

PCT establishes an elaborate mechanism for ostensibly avoiding duplication, but in its present form accepts duplication as a matter of expediency.

If we are to solve the problems which I have mentioned today, I submit that our efforts should be concentrated on the establishment of an international agency devoted to the task of performing a thorough search of the world art. Such an agency should have the most complete documentation available to it, examiners skilled in several languages, and representative of the leading examination countries of the world. Every effort should be made to develop the most sophisticated automated search techniques possible.

This obviously would cost a substantial sum of money. However, the European countries are considering centralized searching for the European patent and PCT in its present form will not be inexpensive. And if PCT in its present form is not the answer, I think it better to face up now to the task before us rather than to experiment with a system which admittedly does not meet the challenge presented by the pace of our modern technology.

Thank you very much. (Applause)

MODERATOR RAHL: Thank you very much.

Now, there is a little change in our program.

I would like to introduce the Chief Economist of the Securities and Exchange Commission, Dr. Gene L. Finn, who has been an Economist

with the Commission since 1965 and is chief this year; previously with the Department of Agriculture, and before that with the Board of Governors of the Federal Reserve System; and he has a Ph.D. in Economics, from the University of Wisconsin.

Dr. Finn.

GENE L. FINN

As a part of The PTC Research Institute's study of international aspects of industrial property protection, we undertook a questionnaire survey of foreign experts from here and abroad. In this manner we hoped that we could pull together and collate the views of these experts, and in the process obtain an overall picture of the existing problems. We felt the results could be used (1) to help focus research efforts; (2) to contribute to our understanding of present international arrangements; and (3) to suggest possible approaches to their improvement.

My purpose here is to present preliminary results from this survey. Obviously a four or five page questionnaire is not going to fully achieve the objectives I have just stated. However, obtaining the views of experts, whose judgment on these matters must be regarded very highly in view of their extensive experience, is an essential first step in the study of international industrial property problems and the possibilities for their solution. Recognizing that major efforts are being made to overcome some problems in this area, such as the PCT and the suggested alternative, we felt that a survey of experts might provide additional insights into these problems, reveal other problems and hopefully provide suggestions toward their resolution. In the survey we had several immediate goals. Among them were:

(1) To get expert judgments on existing problems faced by patentees in securing industrial property rights abroad;

(2) To ascertain inadequacies of present laws and practices;

(3) To determine what the experience has been regarding the abandonment of foreign applications because time proved a lack of commercial value or because prior art was discovered during prosecution;

(4) To determine whether changes or amendments are needed in

certain international agreements; and

(5) To determine whether in the judgment of these experts certain proposed agreements, if they become effective, would alter industrial property protection.

With respect to existing problems the respondents were asked to describe briefly what they considered to be the most burdensome type of problems encountered by patentees in securing industrial property rights abroad. Also, they were asked to indicate the particular countries in which the problem arose. Among the problems mentioned were:

> The necessity of adapting filing and prosecution to the different national requirements. That is, for the same invention different specifications and a different presentation of patentability are required from one country to the next.
>
> The absence of patent protection in the pharmaceutical field in Italy.
>
> In Japan the provision of only one independent claim makes claim drafting extremely difficult. In the United Kingdom novelty search is generally confined to documents in the English language, making search results unreliable and the value of the protection questionable.
>
> Often examiners in charge of files and who have to evaluate patentability of the inventions lack knowledge and practical experience of the actual technical problems involved.
>
> There is a multiplicity of national applications, search and examinations, patent laws, differences of interpretations; long delays in issuance of patents and decreasing quality of examinations in many countries, necessitating complementary searches by patentees and interested parties.
>
> Differences in standards for determining novelty result in substantial variation from one country to another.

With regard to inadequacies in patent laws and practices some judgments expressed were:

> Litigation is too expensive, too time-consuming, or is beset by factors irrelevant to the issue.
>
> Latin American countries and some others do not have reasonable provisions for working, in that in many cases such as computers, aircraft, etc., there are no practical or economical possibilities for manufacturing in the countries involved.

As a result of procedures and differing examinations, patents obtained have different scopes in different countries.

Several pointed out that in Italy pharmaceuticals, and processes for them, are excluded from patent protection, and in Holland protection of compositions of matter is excluded. Also, industrial processes are patentable but not processes in the field of agriculture.

In many countries there are tendencies to restrict the scope of protection to the example used in the application.

With regard to the abandonment of foreign applications because time has proven a lack of commercial values or because prior art was discovered during prosecution, the consensus of these foreign experts was that with adequate search prior art was usually disclosed during application proceedings and later abandonment was apparently not much of a problem. However, most respondents felt that it is very difficult to determine the commercial value of an invention; and some suggested that the Convention period of 12 months was inadequate and perhaps should be increased to 18 or 24 months. It might be pointed out that in this regard a survey of foreign inventors, undertaken by the Institute this last year, yielded essentially the same general conclusion.

One respondent made a rather appealing suggestion for an international arrangement by which countries would set up licensing offices which could act as liaison between a foreign applicant and a prospective user of the invention in a country.

Effects of existing and proposed international agreements: The foreign experts were asked whether or not changes or amendments were desired in selected international arrangements.

As might have been expected, one of the most common complaints was that not enough countries adhere to these agreements. One expert went so far as to argue that international agreements in the industrial property field should be regarded as international law because some countries wait many years before enacting a corresponding national statute. Most respondents felt that the Madrid Agreement on the registration of trademarks was working satisfactorily, but that it has produced a proliferation of registrations many of which were not being used and which tended to reduce the overall usefulness of the agreement. A suggestion was made that provisions be made for non-use cancellations.

It was also suggested that the international registered mark should be licensed.

Nearly all of the experts commenting on the Hague Agreement on

the international deposit of industrial designs felt that it should not be changed although, as in the case of the Madrid Agreement, some complained that there was not sufficient adherence. Similar comments were received regarding the arrangement of Nice concerning the international classification of trademarks; but with regard to both the international classification of trademarks and the international classification of patents some offered the judgment that in order to be helpful the classifications must be followed up and extended so as to keep abreast of technological developments.

With respect to certain proposed international agreements the respondents were asked whether in their opinion industrial property protection would be altered if they became effective. These included the Patent Cooperation Treaty, the World International Property Organization, the Scandinavian Patent Union, the African Malagasy Industrial Property Office, and the European Patent Convention.

Some felt that PCT would be very helpful in that it would simplify procedures. Generally, these experts felt that it would not change industrial property protection, although as many expressed the opinion that it would actually make more expensive the securing of foreign patents as felt it would facilitate the obtaining of foreign patents.

Those commenting on the Scandinavian arrangement generally felt that arrangement would simplify the filing and obtaining of patents in the Scandinavian countries and would set an example for other countries.

Unlike the mixed comments on the other proposals, the European Convention brought forth some rather generally optimistic appraisals. The consensus appeared to be that the Convention would result in a simplification in filing patent applications and possibly would result in a broader protection, including compositions of matter, pharmaceutical inventions and agricultural inventions. In this instance, as in the case of the other proposed agreements, the respondents naturally indicated that their judgments depended upon the results of negotiations and the final form of the agreement in those cases where a final form had not yet been arrived at. Several suggestions were also received on changes that might be desirable in the Paris Convention. Among them were: The suggestion noted before to increase the Convention priority period from 12 to 18 or 24 months; and a suggestion to establish uniform provisions with respect to the working and marking of patentable goods.

In addition to the areas I have just covered, the foreign experts were asked a series of questions relating to their experience in licensing agreements, possible taxation problems that might be arising, and the

need for government approval for some industrial property transactions. The complete results of this survey, including a thorough analysis of the responses, will appear in an article in *IDEA* later this year.

Thank you. (Applause)

*Panel Discussion and Question Period*

MODERATOR RAHL: Thank you for your very interesting report, Dr. Finn.

Mr. Green has very graciously declined to speak further because of the hour and, as I understand it, his remarks will be published at a later date.

We have about eight minutes or so for questions.

I believe Mr. Sophar will begin.

MR. SOPHAR: I have two questions.

One. "In arguing for protection of owners of materials, are you referring to the authors to whom the Constitution refers or to the publishers of the Journal?"

Answer. For the most part I am talking about the publishers of the journals. For the most part the authors receive no compensation and are usually part of some professional society. This is one of the reasons why they so frequently copy. They say: I am not being paid for it anyway. They forget usually that as a member of a society they are, through membership dues and other contributions, trying to support a journal which is usually in the red. So every nickel of income is just as important to that society as to a commercial firm. This is generally true.

The second question is: "Could the photocopying problem be satisfactorily solved by legislation authorizing librarians to collect a 10 percent surcharge, paying it into a national fund in proportion to the number of pages deposited each year by each copyright registration applicant?"

Answer. A similar suggestion was made by a representative of a publishing house except that he suggested that the surcharge be put on the copying machines.

You attorneys know whether this kind of tax could be enacted—

putting a particular surcharge on a particular item or particular service—however, I think the librarians would fight this to the wall.

The fact is, if we are getting things free we are just not going to stand by and accept a system requiring payments. I don't think this idea would have a great chance of going any place as far as legislation is concerned.

MODERATOR RAHL: Mr. Cary.

MR. CARY: A short question here.

"Could not the recompense for single copy be fixed as an added charge to subscribers who also own or rent copying machines?"

The answer is, that is a possibility; it has been discussed. As a matter of fact, this approach is analogous to a law recently passed in Germany whereby the manufacturer of all tape-recording machines is required to pay over to stipulated organizations a certain pecentage, or fee, for every recorder he sells.

This fee is distributed to the performing rights organization and the record manufacturers who apparently are being harmed by all the copying being done by tapes. The difficulty is, with both of these suggestions that were broached, that nobody has really studied how you can put these into effect—what the cost would be, and so forth—and no one is in real agreement as to whether this is what they want or not. So, there are many suggestions which have really not been adequately studied, and someday I guess the moment of truth will arrive and people will have to get down and come up with some resolution of these difficulties.

MR. SOPHAR: May I mention one other thing on that?

As a part of the CICP study we found out that in the end about most of the copying is done from about 1,000 journals and these 1,000 journals are in one way or another controlled by roughly 100 publishers. So this raises the question: Would a special tax or surcharge provide revenue for just 100 publishers?

MODERATOR RAHL: I think that takes care of the questions.

That leaves it only for me to say that I am very impressed with the panel and its quality, and the staying power of the members of the audience who are still here.

I am now happy to turn the proceedings back to Professor Harris.

DIRECTOR HARRIS: Thank you, Professor Rahl.

First, let me express the appreciation of The PTC Research Institute of The George Washington University to the moderators, invited contributors, and to the representatives of the Institute who participated in the Conference. It was your views and your experience that provided the rich and varied fare for our informative discussions. I want particularly to thank Professor Rahl, who did a splendid job all day. His understanding and insightful comments were most provocative.

Second, I want to thank our audience for their attendance and for their informed questions and participation. This interaction between speakers and audience made this Conference one of our best.

The Institute staff has received a great deal of information and advice with respect to our research program, which will certainly play an important role in guiding our future work.

Third, I want to thank the Federal Bar Association and the Bureau of National Affairs for their cooperation, and finally, I want to express our gratitude to the members and friends of the Institute who have supported us, some for over fifteen years. Your continued interest and financial support make our work possible—and the more you provide the better job we can do. And so with our sights set high by this Conference toward the next fifteen years of operation, I declare this Conference adjourned.

(Whereupon, at 6:30 p.m., the Conference adjourned.)