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COMMENTARY

A Systematic Approach to Patent Valuation

Introduction

Inventions are intangible assets that can have value due to their economic potential. A patented invention ("patent") has a need to be evaluated just like other types of assets. Even though patents, like any properties, can be bought and sold at a price negotiated by the parties concerned without resort to any rigorous economic analysis, the value often has to be established by using rational and supportable methods, i.e., to establish its fair market value. Fair market value is generally defined as the price transacted between willing buyer and willing seller, each having reasonable knowledge of the relevant facts and under no compulsion to act. Typical instances when the fair market value of a patent may need to be established include the following:

1. Buying and Selling of a Patent.
   The fair market value of a patent should be established when a sale or a purchase of a patent is contemplated. It may serve as a benchmark or base point for negotiating the sale.
2. Infringement of Patent — Establishment of Damages.
   A patent owner may recover for lost profits or business when his right to the patent is breached, whether by other private parties or due to the eminent domain taking of the patent by the government. Damages are typically based on income lost due to the act of infringement. The extent of the damages can cover the total value of the patent. In the process of establishing damages, the analysis may well be a valuation of the patent. In the case of eminent domain, the damage is usually the fair market value of the patent.
3. Estate and Gift Tax. Charitable Contributions.
   Valuations are necessary for tax reporting purposes such as in estate and gift tax situations because they usually do not involve arms-length transactions. Potential scrutiny by the IRS necessitates an economically ra-

tional and objective approach to valuing property such as patents. Recent statutory changes brought about by the Deficit Reduction Act of 1984 require an independent appraisal for charitable donations exceeding a value of $5,000.

4. Community Property Distribution.
   When a community estate including a patented invention is being dissolved, the valuation of its assets may be required for a fair distribution of property to each party.
5. Allocation of Purchase Price.
   In mergers and acquisitions of corporations that hold assets including patents, an allocation of the purchase price to patent is necessary to establish its cost basis for future depreciation or amortization. For an intangible asset such as a patent or an invention, a fair market valuation can help to establish its cost basis.

While it is recognized that patent valuations are not standardized, mathematical formula processes, there are some guidelines that are employed by the valuation profession, the courts, and the IRS. For instance, three important factors recognized by the IRS in valuing a patent are:[a]

1. The income attributable to the patent or its application.
2. The safe interest rate at the valuation date.
3. The most reasonable, speculative capitalization rate arrived at in an intelligent, explainable fashion.

Other factors recognized by the courts and the valuation profession generally include:

1. Importance of the patent to the product or process.
2. Projected sales revenues & income from the use of the patent.
3. Competitive alternatives to the use of the patent.
4. Cost savings derived from the use of the patent.
5. Economic life of the patent.

Existing Methodology

The concepts of patent valuation have been described in some detail

[a] IRS Valuation Guide no. 19, 5/4/82 p104.

by academicians, practitioners, and in court cases. The frequently described valuation approaches include the following:

1. Royalty/Relief from Royalty
2. Cost Savings/Excess Income
3. Allocation of Income
4. Cost of Reproduction

Although the valuation concepts for patents seem basic, actual valuation of a patent is often hampered by various factors such as newness of the technology, lack of clear evidence of economic potential, and unproven commercial competitive advantage vis-a-vis existing art. Below we have outlined a systematic approach of valuation in which these various important factors are dealt with rationally. The value conclusion thus can meet the objective standards of fair market value. Although we refer to patents specifically, this systematic approach can be applied to any bona-fide inventions, patented or not.

Outline of Systematic Approach

In fundamental terms, the value of a patent is based on its future returns, measured as a stream of royalties, cost savings, or income, which is discounted at an appropriate rate of return to arrive at its present value. The present value is equal to the fair market value of the patent. The steps of applying this basic concept follow:

1. Industry Overview and Forecast.
   Valuation of a patent begins with an examination of the market and industry applicable to the user of the patent. Economic conditions within targeted market areas, state of the industry, and size of the market should be analyzed and quantified. From this data, estimates of attainable market share along with time schedules can be made. Factors that may influence these estimates include the life-cycle stage of the industry or product; status of the user's distribution network; its manufacturing capacity, managerial and financial depth.
2. Projection of Revenue & Income from using the Patent.
   Based on industry prospects, projection of revenues and income (before payment for the use of the patent, such as royalties) from operations utilizing the patent is made. The projection period should approximate the estimated useful life of the patent as much as possible. The objective of the revenue & income projection is to

determine the economic income attributable to the use of the patent. Economic income represents more than accounting income measured by generally accepted accounting principles (GAAP). It should reflect all real expenses of operation, which may exceed expenses recognized by GAAP. For example, engineering assistance provided by the inventor/seller is sometimes required in the sales terms to make the patent commercially feasible. These costs should be recognized as part of total economic expenses related to the use of the patent.

3. Determination of Appropriate Benefit Base.
Benefit base is the economic return associated with the patent. It can come in several forms:

Royalty Rates — Royalty is the most frequently realized form of benefit from patents because it allows the seller to share in sales growth and the user is not burdened with heavy initial cash outlays. Even though the royalty is usually based on revenues, the major consideration is the projected profitability of the operation using the patent.

Cost Savings/Excess Income — This is most often found in product and process improvement patents. The projected income assuming patent use is compared with the projected income assuming non-patent use to determine the benefit of using the patent in operations. The increased income resulting from the use of the patent is the benefit base. However, the cost savings or excess income should reflect the use of the patent only, and not other factors such as advertising, goodwill, etc.

Income from Operations — This benefit base is the projected income from operations which can be estimated by the steps described above.

4. Allocation of Benefit Base to Seller.
After the benefit base has been determined, the appraiser can select a reasonable and supportable allocation of the benefit to the seller. If the royalty approach is used, the benefits that will accrue to the seller will be in royalties, measured as a percentage of projected revenues. The benefits accrued to the seller when using the cost savings/excess income approach will be a percentage of the projected cost savings or excess income.

Finally, when using the income from operations approach, benefits to the seller will be a percentage of projected income. Some frequently heard rules-of-thumb include 3%-7% of revenue royalty rates and 25% allocated income to the patent seller.

5. Determination of Present Value.
   The estimated stream of benefits to the seller is then discounted at an appropriate rate of return to arrive at its present value. The selected rates of return should reflect the degree of risk associated with the future returns such that the greater the risk the higher the required rate of return, producing a lower value for the patent. The present value of the benefit stream to the seller is the fair market value of the patent.

Another Valuation Approach

Some schools of thought recognize cost of reproduction as an indication of fair market value. This refers to the historical cost incurred in the development of a particular patent or the estimated cost of reproducing the patent. It should be noted that cost does not necessarily represent value since a purchaser of technology will only pay an amount that will enable him to make a reasonable return based on expected revenue and expenses from utilizing the technology. Thus, valuation methods that recognize expected future returns may be more relevant in determining the value of a patent than an indicated value from the "Cost of Reproduction Approach."

Conclusion

An objective and systematic valuation has many obvious benefits. The patent valuation will be more supportable in case of challenge. The analytical process described above also can help the patent owner to negotiate royalty rates in licensing arrangements based on economic reality. Like all valuations of intangible assets, patent appraisal demands some creativity in dealing with the often unique circumstances. But a systematic approach as outlined will ensure that the important factors will be considered.

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TRADEMARK REGISTRATION OF A COLOR HAVING SECONDARY MEANING: IN RE OWENS-CORNING FIBERGLAS CORPORATION

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I. INTRODUCTION

Since 1956, Owens-Corning Fiberglas Corporation has manufactured pink fibrous glass building insulation. The pink color results from a red dye added to the phenolic resin that forms a matrix for the finished product. Owens-Corning has, from the onset, added the red dye in order to distinguish its insulation from that of competitors, and to indicate Owens-Corning as the source. Over the years, the company has spent millions of dollars for advertising and promoting pink insulation products, resulting in widespread recognition of the color pink as indicating Owens-Corning's insulation.

This article examines Owens-Corning's efforts to obtain trademark registration for the color pink, and reviews the statutory provisions of the Lanham Act concerning the registration of a color having secondary meaning.

II. OVERVIEW OF TRADEMARKS

A. *Historical Development of Trademarks*

The practice of placing a mark upon an object in order to communicate a message to the observer began thousands of years ago. The

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earliest documented use of such a device is the Biblical account of the Lord setting a mark upon Cain after he had murdered his brother Abel, thereby indicating to all who would see the mark that Cain's life was not to be taken in retribution.[1] Markings were used over 3,000 years ago to identify the artisans of pottery and to signify ownership of livestock, as is evidenced by archaeological relics and cave wall paintings depicting the branding of animals (from which the term "brand name" is derived).

As early as the thirteenth century, the statutes of some European countries provided a form of trademark registration intended to protect consumers by preventing the sale of goods whose quality was unascertainable. These statutes also allowed a manufacturer to identify his goods and afforded him a marketing advantage.

In England during the seventeenth century, trade had expanded beyond local communities, and the mark (or trademark) developed into a shortcut for consumers who could rely on it as a substitute for the individual testing of products.[2] By the nineteenth century, trademarks had assumed several functions dealing with commerce:

- indication of ownership
- identification of goods
- indication of manufacturer
- designation of geographic origin
- indication of quality.[3]

A trademark statute was proposed in Colonial America by Thomas Jefferson whose friends sought the exclusive use of a trademark on sailcloth. It was not until 1870, however, that Congress enacted the first trademark statute[4], later held unconstitutional because it was not limited to interstate or foreign commerce.[5] In 1881, an appropriately limited trademark act was passed[6], then later replaced by the 1905[7] and 1920[8] acts. These were superseded in 1946 by the Lan-

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[1] HOLY BIBLE, Gen. 4:15.

[2] Choate & Francis, PATENT LAW 993 (1981).

[3] Diamond, *The Historical Developments of Trademarks,* 65 Trademark Rep. 285 (1965).

[4] 16 Stat. 210.

[5] U.S. v. Steffens, 100 U.S. 82 (1879).

[6] 21 Stat. 502.

[7] 33 Stat. 724.

[8] 41 Stat. 533.

ham Act[9], which continues as the modern day legislation dealing with trademark law.[10]

B. *Functions of Trademarks*

An explanation of the characteristics of a trademark leads to a better understanding of its functions. Justice Frankfurter expressed the nature of trademarks as follows:

> A trade-mark is a merchandising short-cut 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 trade-mark owner has something of value. If another poaches upon the commercial magnetism of the symbol he has created, the owner can obtain legal redress.[11]

The definition of a trademark as stated in the Lanham Act is:

> ... 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.[12]

Thus, trademarks establish a relationship between producers and consumers, and provide a basis for their interrelated conduct. Simply stated, trademarks are devices for communicating information to potential consumers upon which they may base a decision whether to purchase.

Trademarks perform several functions which may be arranged into three general categories: identification of source and differentiation between similar goods; certification of a consistent level of quality; and advertisement.[13] Although the primary policy reason for permitting the exclusive use of trademarks is to prevent the confusion and deception of consumers, producers also benefit from the exploitation of trademarks.

Clearly, trademarks allow consumers to identify products (even though the sources of the products may be unknown), and to distinguish those products from similar goods. A trademark does not reveal the nature nor the qualities of a product, but merely indi-

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[9] 15 U.S.C. §1051.

[10] Gilson, TRADEMARK PROTECTION AND PRACTICE 1-5 (1985).

[11] Mishawaka Rubber & Woolen Mfg. Co. v. S.S. Kresge Co., 316 U.S. 203, *reh den*, 316 U.S. 712 (1942).

[12] 15 U.S.C. §1127.

[13] Stinson, Trademarks and "Look-Alike Drugs", 15 Ind. L. Rev. 733, 739 (1982).

cates its source, from which a certain level of quality may be inferred.[14] A trademark also need not reveal the name of the manufacturer of the product, but must indicate to the consumer a single source, albeit anonymous.[15]

Consumers make use of products, and thereby establish an association between the products' trademarks and perceived levels of quality. A trademark does not necessarily mean high quality, and may in fact serve as the basis for rejection of a product.[16] Consumers expect a consistent, predictable level of quality from products bearing a common trademark. They also assume that identical products purchased at different locations will have the same level of quality, even with the knowledge that the items may have originated from separate manufacturing facilities (e.g. McDonald's hamburgers purchased in New York and Los Angeles).[17]

Producers are aware that trademarks inspire healthy competition in product quality. Trademarks act as incentives to maintain established product quality, and thereby good will.[18] Anonymity would, on the other hand, result in competition to produce at the lowest possible price; and price would then become the primary factor used by consumers to determine their choices between similar goods. Trademarks also benefit producers by providing legitimate barriers to entry for competitors venturing into new product lines who must overcome brand loyalty.[19]

Trademarks serve to advertise products, thus providing additional information to consumers who are faced with product choices in self-service situations. They reduce consumers' search costs by lowering the level of investigation required for individual purchases.[20]

Producers recognize the use of trademarks as a means for reducing the costs of communicating information to potential consumers. Trademarks are marketing devices that entice consumers to try new products having established trademarks, and are tools used to create good will for the producers.[21]

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[14] McCarthy, TRADEMARKS AND UNFAIR COMPETITION 108 (1984).

[15] Menzies v. International Playtex, Inc., 204 U.S.P.Q. 297, n. 10 (TTAB 1979).

[16] Diamond, *supra,* at 289.

[17] See Dawn Donut Company, Inc. v. Hart's Food Stores, Inc., 267 F.2d 358 (2nd Cir. 1959).

[18] McCarthy, *supra,* at 45.

[19] Areeda, ANTITRUST ANALYSIS 20 (1981).

[20] McCarthy, *supra,* at 47.

[21] *Id.* at 116.

C. *Protection of Trademark Rights Through Registration*

Federal registration of a trademark on the principal register is a right conferred on the owner of the mark by Section 2 of the Lanham Act.[22] It states:

> No trademark by which the goods of the applicant may be distinguished from the goods of others shall be refused registration on the principal register on account of its nature unless....

The remainder of Section 2 goes on to list the circumstances under which a mark may be refused registration. Therefore, unless one of these circumstances applies to the mark for which one seeks federal registration, the language of the act clearly states "[n]o trademark... shall be refused registration on the principal register..."

Assuming a mark functions as a trademark, and has been affixed to a product and used in commerce[23], it qualifies for federal registration unless it falls within one of the statutory bars listed in Section 2 of the Lanham Act.[24] In addition to these statutory bars, the courts have developed two additional common law bars to registrability concerning the use of colors as trademarks; the color depletion theory and the functionality bar.[25] Nevertheless, any mark, except one described in Section 2(a)-(d), may be registered on the principle register if it has acquired a secondary meaning. Section 2(f) of the Lanham Act clearly states that the only marks which can never acquire secondary meaning are those characterized in Sections 2(a)-(d), comprising:

1) immoral, deceptive, scandalous, or disparaging matter;
2) flags, coats of arms or insignia of any government;

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[22] 15 U.S.C. §1052.

[23] McCarthy, *supra,* at 884.

[24] 15 U.S.C. §1052.

[25] Campbell Soup Company's attempt to acquire exclusive rights to the colors red and white as applied to food product packages was rejected by Judge Goodrich who stated: "If they may thus monopolize red in all of its shades, the next manufacturer may monopolize orange in all its shades and the next yellow in the same way. Obviously, the list of colors would soon run out." Campbell Soup Company v. Armour, 175 F.2d 795, 798 (3rd Cir. 1949).

The functionality bar is illustrated by Life Savers Corporation's action for infringement of its trademark comprising a multicolored striped package for its candy disks. The court stated: "... in the competitive field in which the plaintiff and defendant market their products the use of color, including colored stripes, as the background on labels is functional and indicates what color and flavor of candy the package contains." Life Savers Corporation v. Curtiss Candy Co. 182 F.2d 4, 7 (7th Cir. 1950).

3) names, portraits or signatures of living individuals (except with written consent) or deceased Presidents of the United States during the lives of their widows (except by written consent of the widow); and
4) marks likely to be confused with trademarks previously used in the United States or already federally registered.[26]

Therefore, the Lanham Act allows for the registration of color trademarks, if those marks have acquired a secondary meaning, which otherwise would have been precluded because of the statutory bar in Section 2(e) of the Lanham Act[27], the color depletion theory, or the functionality bar.

III. OWENS-CORNING'S TRADEMARK, THE COLOR PINK

A. *Brief History of Use by the Corporation*

Ownes-Corning first used a pink dye in the manufacture of fibrous glass reinforced building insulation in 1956. That was also the year of first use in interstate commerce.[28] The color pink has been used exclusively and continuously by Owens-Corning as a coloration for its fibrous glass insulation products from 1956 until the present.

Owens-Corning's purpose for coloring its insulation pink was to identify the product, and distinguish it from the insulation products of other manufacturers. Conversely, Owens-Corning's competitors did not intentionally color their products during the manufacturing process, but allowed their insulation products to retain the natural coloring . . . a light yellow-white. The selection of the color pink was both nonfunctional and arbitrary.[29]

Owens-Corning has always used the color pink for its insulation products in a trademark manner, as is evidenced by several pieces of advertising literature submitted to the United States Patent and Trademark Office in support of the application for federal registration.[30] In 1979, the company adopted the use of a Pink

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[26] 15 U.S.C. §1052(a)-(d).

[27] *Id.* §1052(e).

[28] Application for Registration of the trademark: the color pink (filed Jan. 25, 1980) 1 (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[29] Amendment "A", Application for Registration of the trademark: the color pink (filed Apr. 23, 1981) 2 (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[30] *Id.*, at 3.

Panther[31] character to enhance the association between the color pink and the company's insulation products.[32]

B. *Owens-Corning's Procurement of Federal Registration*

1. In the Patent and Trademark Office

In January 1980, Owens-Corning submitted an Application for Registration on the principal register for the color pink as a trademark on its fibrous glass reinforced insulation products. The drawing accompanying the application illustrated a rectangular, prismatic piece of fibrous glass insulation, lined to indicate the color pink.[33] Registration was refused by the Trademark Examining Attorney because the matter presented for registration was a configuration of the goods and therefore merely descriptive.[34]

Owens-Corning filed an Amendment to the Application for Registration in April of 1981. The company disclaimed the configuration of the goods, and reiterated its claim to the trademark, the color pink. Owens-Corning presented the following facts to support its additional contention that the color pink, as applied to fibrous glass insulation, had acquired secondary meaning in the marketplace:

1) The selection of the color pink was arbitrary and nonfunctional;
2) The color was distinguishable from the colors of competitors' insulation products;
3) An affidavit by the Vice President of Marketing set forth the cumulative costs to date for advertising Owens-Corning's pink insulation products;
4) Specimens of printed advertisements for insulation products utilizing the color pink;
5) An affidavit by the Vice President of Marketing indicated the results of an independent survey of customer awareness; and
6) A trade publication article recognizing the color pink as an indication of Owens-Corning's insulation products.[35]

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[31] Pink Panther is the trademark of United Artists.

[32] Amendment "A", Application for Registration of the trademark: the color pink, *supra,* at 4.

[33] Application for Registration of the trademark: the color pink, *supra,* at 1, 3.

[34] Office Action, Paper #1 (issued Nov. 3, 1980) 1 (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[35] Amendment "A", Application for Registration of the trademark: the color pink, *supra.*

Registration was again refused by the Trademark Examining Attorney who asserted that "... color alone applied to the configuration of the goods, cannot function as a trademark."[36] The three cases cited[37] in support of the refusal, however, dealt with the rejection of color per se as a trademark, and not the denial of rights in a trademark having secondary meaning. The Trademark Examining Attorney's refusal for registration did not address Owens-Corning's claim of trademark rights based upon a showing of secondary meaning. Rather, the cases cited by the Trademark Examining Attorney supported Owens-Corning's contention that secondary meaning renders an otherwise not-inherently-distinctive mark (such as color per se) registrable.[38]

Owens-Corning responded to the Trademark Examining Attorney's second refusal by filing Amendment "B" to its Application for

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[36] Office Action, Paper #3 (issued Jan. 11, 1982) 1 (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[37] In re Ritchie Manufacturing Company, 170 U.S.P.Q. 291 (TTAB 1971); Plastilite Corporation v. Kassnar Imports, 508 F.2d 24 (CCPA 1975); In re The AFA Corporation, 196 U.S.P.Q. 772 (TTAB 1977).

[38] In *In re Ritchie,* the refusal to register the colors red and yellow as applied to livestock waterers was reversed by the Trademark Trial and Appeal Board. It stated that "... color alone or color indiscriminately applied may not function as a trademark..", thereby recognizing that color per se cannot be registered. The Board determined, however, that in this case the red and yellow colors had acquired a secondary meaning, remarking that "... what applicant seeks to register does, in fact, function to identify and distinguish applicant's goods in commerce." In re Ritchie Manufacturing Co., 170 U.S.P.Q. 291 (TTAB 1971).

The United States Court of Customs and Patent Appeals cancelled plaintiff's trademark consisting of the colors yellow and orange as applied to fishing floats in the Plastilite case. The Court's two step analysis first determined that the mark was "... not inherently distinctive," then inquired whether the mark had achieved a secondary meaning. It determined that the "... appellant's mark [had] not become distinctive as primarily an indication of source of appellant's goods." Secondary meaning was proffered by the court as the means to surmount the non-registrability of color per se, saying "If the mark is inherently distinctive, it is registrable. If not, there must be evidence showing that the mark has become distinctive." Plastilite Corporation v. Kassnar Imports, 508 F.2d 824 (CCPA 1975). In the AFA Corporation case, the Trademark Examining Attorney's refusal to register the colors black and gold as applied to mist-making machines was reversed by the Trademark Trial and Appeal Board. The Board remarked that color per se could not function as a trademark (not-inherently-distinctive), then found that secondary meaning conferred registrability for the plaintiff's mark, saying "... the color configuration ... was adopted with an intent to function as an origin-indicating device; it has been promoted as such to the purchasing public; and there is evidence of purchaser recognition thereof as an identification symbol." In re The AFA Corporation, 196 U.S.P.Q. 772 (TTAB 1977).

Registration in July, 1982.[39] The company repeated its recognition of the fact that color alone is not sufficient for trademark registrability, but then cited Plastilite Corp. v. Kassner Imports to demonstrate that:

> ... a mark not inherently distinctive may become registerable if there is evidence showing that the mark has in fact become distinctive.[40]

The evidence originally submitted to establish secondary meaning for the color pink as applied to fibrous glass insulation was recounted. Owens-Corning then cited *In re Hehr Manufacturing Company* as proof that color may acquire a secondary meaning in the marketplace, thereby allowing registration under 15 U.S.C. §1052(f).[41]

Reference to the *Hehr* decision, however, was inappropriate because the case did not specifically address the issue of registrability of a color, which would otherwise have been unregistrable as color per se, through establishment of a secondary meaning. *In re Hehr*[42] was an appeal from a decision by the Trademark Trial and Appeal Board refusing registration for a red square as a trademark. Red square stickers had been used by the applicant as a trademark upon windows for mobile homes. The applicant attempted to register the color and shape of its mark as an inherently distinctive symbol signifying source. The applicant's brief before the Board stated that:

> ... advertisements ... emphasized the shape and color of the RED SQUARE per se as a trademark identifying petitioner's goods.[43]

On appeal, the Court of Customs and Patent Appeals implied that secondary meaning could make a not-inherently-distinctive mark registrable. The Court reversed the Trademark Trial and Appeal Board's decision thereby allowing registration, saying only that:

> ... the record as a whole supports the applicant's position that the instant label sufficiently distinguishes and identifies its goods as to justify registration.[44]

It is, therefore, not clear whether the court found the red square inherently distinctive, or whether secondary meaning conferred

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[39] Amendment "B", Application for Registration of the trademark: the color pink (filed Jul. 6, 1982) (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[40] *Id.*, at 2.

[41] *Id.*, at 3-4.

[42] In re Hehr Manufacturing Company, 126 U.S.P.Q. 381 (CCPA 1960).

[43] *Id.*, at 382.

[44] *Id.*, at 383.

registrability upon the mark which the court deemed not-inherently-distinctive. In either case, the trademark in Hehr consisted of a color combined with a shape, which is very different from Owens-Corning's trademark of a color (having secondary meaning) alone.

Registration was refused a third time, and made final by the Trademark Examining Attorney who again failed to respond to Owens-Corning's argument that the color pink was registrable by virtue of established secondary meaning.[45] The Trademark Examining Attorney quoted portions of *Plastilite,* saying:

> ... color ... cannot be monopolized by a claim of trademark rights ...

and:

> ... color *may,* however, be *part of a trademark* where it is used in a particular manner.

The Trademark Examining Attorney apparently failed to realize that this was the *Plastilite* court's recognition of the facts that: 1) color per se is not inherently distinctive and therefore cannot be registered, and 2) color plus another feature (i.e., color plus more) may be inherently distinctive and therefore registrable. He further concluded that the Plastilite case proved that the:

> ... use of color as a trademark is not considered to be trademark use as contemplated by the preamble of Section 2 of the Act and Section 45 of the Act.[46]

A careful review of the referenced sections, however, militate against such a conclusion. Section 2 of the Lanham Act states that:

> [n]o trademark by which the goods of the applicant may be distinguished from the goods of others shall be refused registration on the principal register on account of its nature unless ...

one of several statutory bars applies to the particular mark for which the applicant seeks registration.[47] This clearly suggests that Owens-Corning's mark, the nature of which comprises the color pink uniformly applied to fibrous glass insulation products, cannot be refused registration if used in a trademark manner; i.e., as a:

> ... 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.[48]

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[45] Office Action, Paper #5 (issued Feb. 7, 1983) 1 (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[46] *Id.,* at 1.

[47] 15 U.S.C. §1052.

[48] 15 U.S.C. §1127.

Color does not fall within the statutory bars enumerated in Section 2 of the Lanham Act, and Owens-Corning has proffered uncontested evidence that it adopted the color pink as a trademark in order to distinguish its products in the marketplace. Therefore, the Lanham Act prescribes registrability for Owens-Corning's trademark, the color pink.

2. Before the Trademark Trial and Appeal Board

Owens-Corning appealed the Trademark Examining Attorney's final refusal to the Trademark Trial and Appeal Board in July of 1983. Briefs were filed by both the company[49] and the Trademark Examining Attorney.[50]

Owens-Corning's brief reiterated the company's arguments and position that the Lanham Act allows the registration of a color having acquired secondary meaning under Section 2(f). The Trademark Examining Attorney's brief, however, referred to additional cases in support of his position that color is never registrable. He cited *Campbell Soup Co. v. Armour & Co.*[51], saying:

> [t]his case clearly draws the distinction between color per se and color in combination with a distinctive design (which is registrable).[52]

By this reference, the Trademark Examining Attorney was insisting that color may only be registered if it is a component of an inherently distinctive mark. A careful investigation of *Campbell Soup,* however, reveals the court's actual finding that color per se (which is not registrable) may be transformed by the addition of some other attribute (in this case, a design is suggested) into a registrable trademark; color "per se" becomes color "plus more", and "not-inherently-distinctive" becomes "inherently distinctive." The *Campbell Soup* decision concerns the nonregistrability of not-inherently-distinctive marks, and does not address Owens-Corning's contention that a not-inherently-distinctive color (color "per se") becomes registrable by operation of 15 U.S.C. §1052(f) if the color acquires secondary meaning (color "plus more").

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[49] Brief by Owens-Corning on Appeal of Trademark Examining Attorney's Final Refusal for Registration of the trademark: the color pink (filed on Sep. 16, 1983) (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[50] Trademark Examining Attorney's Brief on Appeal of Final Refusal for Registration of the trademark: the color pink (filed on Dec. 29, 1983) (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[51] Campbell Soup Co. v. Armour & Co., 175 F.2d 795 (3rd Cir. 1949).

[52] Trademark Examining Attorney's Brief on Appeal of Final Refusal for Registration of the trademark: the color pink, *supra,* at 2.

The Trademark Examining Attorney's brief erroneously stated that:

> ... it would appear that the applicant is saying that the color pink should be registrable under Section 2(f) of the Act — which it has not claimed.[53]

Owens-Corning had in fact claimed its right to registration under Section 2(f) in the initial application. This is further evidence that the Trademark Examining Attorney's refusals for registration were made without consideration of the registrability of a not-inherently-distinctive mark having secondary meaning under 15 U.S.C. §1052(f).

Finally, the Trademark Examining Attorney cited *In re The AFA Corporation*[54] and *In re Ritchie Manufacturing Co.*[55], saying that these two cases:

> ... clearly show that color must be used in conjunction with a distinctive design in order to be registrable.[56]

Upon careful examination, however, these cases teach precisely the opposite result. Although the two cases suggest that a not-inherently-distinctive color may become distinctive by combining it with an arbitrary shape (and therefore registrable under 15 U.S.C. §1052), the courts conclude by granting registration under 15 U.S.C. §1052(f) to not-inherently-distinctive colors which have acquired secondary meanings in their respective markets! This is exactly the protection sought by Owens-Corning for its use of the color pink for fibrous glass insulation products.

The Trademark Trial and Appeal Board affirmed the Trademark Examining Attorney's refusal for registration of Owens-Corning's mark in April of 1984.[57] Seven cases were cited by the Board as evidence that marks consisting solely of colors are nonregistrable or not entitled to protection under the laws of unfair competition.[58] Registration or protection was properly refused in these cases because

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[53] *Id.*, at 3.

[54] *In re The AFA Corporation, supra.*

[55] *In re Ritchie Manufacturing Co., supra.*

[56] Trademark Examining Attorney's Brief on Appeal of Final Refusal for Registration of the trademark: the color pink, *supra,* at 3.

[57] In re Owens-Corning Fiberglas, 221 U.S.P.Q. 1195 (TTAB 1984).

[58] Plastilite Corp. v. Kassnar Imports, 508 F.2d 824 (CCPA 1975); Volkswagenwerk AG v. Rickard, 492 F.2d 474 (5th Cir. 1974); Fram Corp. v. Boyd, 230 F.2d 931 (5th Cir. 1956); Life Savers Corp. v. Curtiss Candy Co., 182 F.2d 4 (7th Cir. 1950); Campbell Soup v. Armour & Co., 175 F.2d 795 (3rd Cir. 1949); James Heddon's Sons v. Millsite Steel & Wire Works, Inc., 128 F.2d 6 (6th Cir. 1942); and In re Capri Macaroni Corp., 173 U.S.P.Q. 630 (TTAB 1972).

the colors adopted in each instance were not-inherently-distinctive. Additionally, registration was refused in *Campbell Soup* based upon the color depletion theory[59], and in *Life Savers Corporation* and *In re Capri-Macaroni Corp.* due to the functionality bar.[60] Secondary meaning, which according to 15 U.S.C. §1052(f) could have overcome non-distinctiveness, the color depletion bar or incidental functionality of the marks, was not established in any of the seven cases.

The Board then cited ten other cases in which colors had been deemed registrable or entitled to protection.[61] Six of these cases concerned marks consisting of a color in combination with a shape or design. These marks were determined to be inherently distinctive, and therefore registrable under 15 U.S.C. §1052, or entitled to protection under unfair competition laws. The other four cases were decided in favor of registrability or protection of the trademarks, based upon findings of secondary meaning.[62] This distinction sustains Owens-Corning's contention that secondary meaning renders its use of the color pink on fibrous glass insulation as registrable on the principal register.

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[59] See note 25, *supra.*

[60] *Id.*

The court stated: "[t]he so-called color combination is merely dictated by the ingredients used in the manufacture of the vegetable macaroni." *In re Capri Macaroni Corp., supra,* at 631.

[61] Dallas Cowboys Cheerleaders, Inc. v. Pussycat Cinema, Ltd., 604 F.2d 200 (2nd Cir. 1979); Quabaug Rubber Co. v. Fabiano Shoe Co. Inc., 567 F.2d 154 (1st Cir. 1977); In re Data Packaging Corp., 453 F.2d 1300 (CCPA 1972); In re Esso Standard Oil Co., 305 F.2d 495 (CCPA 1962); Mershon Co. v. Pachmayr, 220 F.2d 879 (9th Cir. 1955); Yellow Cab Transit Co. v. Louisville Taxicab & Transfer Co., 147 F.2d 407 (6th Cir. 1945); In re the AFA Corp., 196 U.S.P.Q. 772 (TTAB 1977); T & T Mfg. Co. v. A. T. Cross Co., 178 U.S.P.Q. 497 (TTAB 1973); In re Ritchie Mfg. Co., 170 U.S.P.Q. 291 (TTAB 1971); and Ex Parte Ohio Knife Co., 117 U.S.P.Q. 449 (CP 1958).

[62] Secondary meaning entitled the applicant's use of the color yellow, as applied to taxicabs, to protection in the Yellow Cab decision. The circuit court stated "The distinctive yellow color scheme... [has] been used by the appellee continuously since adoption... coming to be generally recognized by the public...". Further, the court stated "The appellee is entitled to protection in its long established use of the color yellow on its taxicabs in Louisville, inasmuch as it has acquired a good will... by virtue of appropriate application of the doctrine of secondary meaning". Yellow Cab Transit Taxicab & Transfer Co., *supra,* at 349, 354-355.

In the Commissioner of Patents' decision to remand the case back to the Trademark Examining Attorney for a determination of factors establishing whether the applicant's mark, comprising the color green as applied to one surface of a knife, had acquired secondary meaning, the Commissioner stated "... purchasers

In re Shaw was cited by the Board as the case that presented the closest factual situation to the instant *Owens-Corning* case.[63] *Shaw* concerned an application for registration on the supplemental register of a:

> ... green suede cover of [a] book as a package or configuration of goods.[64]

This case was clearly inaccordant with the subject matter in the Owens-Corning application. Shaw sought registration of a color combined with a configuration. Registration was refused due to the functionality of the book cover which had not been rendered registrable by secondary meaning.[65] Owens-Corning conversely sought registration of a color having secondary meaning as applied to its insulation products.

The Board continued by referencing *Deere & Co. v. Farmhand, Inc.* which affirmed the bar to registration (in that case, a bar to protection against unfair competition) for a color that is functional.[66] The Board concluded, however, that:

> [i]n the case with which we are now presented, the Examining Attorney made no finding that the color pink performs any non-trademark function — aesthetic or otherwise — with respect to fibrous glass insulation. Nor is there anything in the record to suggest that such a finding would be supportable.[67]

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may ... look to such color markings as indications of origin. ...Applicant has painted the back edges of his knives green for nearly a quarter century, and it seems likely that during that time it has called attention ... to the marking as a mark of origin. ...If the green back edge of applicnt's cutting knives does, in fact, identify and distinguish applicant's products ... [the color green as applied to the back edges of knives is registrable on the principal register]". Ex parte Ohio Knife Co., *supra,* at 449-450.

See note 38, *supra.*

[63] *In re Owens-Corning Fiberglas, supra,* at 1197.

[64] In re Shaw, 194 U.S.P.Q. 253, 253 (TTAB 1974).

[65] The Board stated "... the book covers are basically and inherently functional". In deciding whether the green book covers had attained secondary meaning, the Board continued "... the few references of record to a "Green Book" published by applicant could not prove any distinctiveness in a green suede cover as against any other publication also having a green cover." In re Shaw, *supra,* at 255.

[66] In determining that the color "John Deere Green" as applied to front end loader tractor attachments was functional, the court stated "... under the doctrine of aesthetic functionality, the inquiry should focus on the extent to which the design feature is related to the utilitarian function of the product or feature. ...The doctrine of aesthetic functionality should apply [in this case]. ...Farmers prefer to match their loaders to their tractor ...". Deere & Co. v. Farmhand, Inc., 560 F.Supp. 85 (SD Iowa 1982).

[67] *In re Owens-Corning Fiberglas, supra,* at 1198.

Therefore, the Board's refusal of registration for Owens-Corning's trademark was not based upon the functionality bar.

Color depletion was propounded in the court's opinion as the theory most often used for the refusal of trademark registration for a color. The Board noted, however, that the theory was based upon a need that did not exist regarding Owens-Corning's use of the color pink; that:

> ... where there is no competitive need (whether characterized as "aesthetic" or otherwise) for colors to remain available to all competitors, the color depletion argument is an unreasonable restriction on the acquisition of trademark rights.[68]

The Board recognized that other fibrous glass insulation manufacturers preferred to produce their goods without coloration, saying:

> ... the competitive need which underlies the "color depletion" theory is simply not present here. Therefore, we do not believe the theory serves as a proper basis for finding that pink cannot function as a trademark for applicant's insulation.[69]

Therefore, the Board's refusal of registration was not based upon the color depletion theory.

After drawing an analogy between the Owens-Corning case and the situation in which a mark falling within the proscriptions of §1052(e) acquires distinctiveness through application of §1052(f), the Board reviewed the evidence offered to establish secondary meaning. The Board concluded that Owens-Corning's proof of continuous, exclusive use, enormous advertising expenditures and survey evidence of consumer recognition did

> ... not make a convincing showing that purchasers of insulation associated pink insulation exclusively with the applicant.[70]

Although a consumer recognition level of 50% of the relevant universe was sufficient to establish secondary meaning in an earlier federal court case, the Board announced:

> ... that some 50% of male homeowners who responded to the survey question knew that the applicant makes insulation that is pink does not establish that those respondents associate pink insulation with a single source.[71]

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[68] *Id.*

[69] *Id.*

[70] *Id.*, at 1199.

[71] *Id.*

Consumers believed that football jerseys displaying NFL symbols were in fact distributed by the National Football League, according to the court which stated: "The overall belief level was around 50%. After considering the survey

Thereafter, the Board concluded that the trademark was not registrable, presumably based upon a finding that secondary meaning had not been proved.

3. In the U.S. Court of Appeals for the Federal Circuit

Owens-Corning elected to appeal the decision of the Trademark Trial and Appeal Board to the Court of Appeals for the Federal Circuit. The appeal proceeded upon a closed record, thereby precluding the introduction of new evidence. Owens-Corning alleged that the findings of fact by the Trademark Trial and Appeal Board concerning the absence of secondary meaning were "clearly erroneous", and that the decision should be reversed.

Briefs were submitted by both the corporation[72] and the Trademark Examining Attorney[73], and contained essentially the same substantive arguments as their earlier briefs. The case was heard by the Court of Appeals for the Federal Circuit, and the decision was issued on October 8, 1985.[74]

The Court agreed with the Board's conclusion that:

> ... the overall color of goods is capable of functioning as a trademark ...

but decided that the:

> ...denial of registration on the ground that [Owens-Corning] had not adequately demonstrated that the color "pink" is distinctive of [Owens-Corning's] goods ...

must be reversed as clearly erroneous.[75] Therefore, Owens-Corning's trademark the color pink was granted registration on the principal register.

The Court reviewed the judicial history of attempts to register or protect color trademarks. Prior to the Lanham Act, colors could not be registered as trademarks, but were nevertheless protected from copy-

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results ... the Court is satisfied that plaintiffs have made a sufficient showing of secondary meaning in their marks." National Football League v. Wichita Falls Sportswear, 532 F.Supp. 651, 659 (WD Wash 1982).

[72] Brief by Owens-Corning on Appeal of Decision by Trademark Trial and Appeal Board for Refusal for Registration of the trademark: the color pink (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[73] Brief by Trademark Examining Attorney in Support of Decision by Trademark Trial and Appeal Board for Refusal for Registration of the trademark: the color pink (on file in the United States Patent and Trademark Office, Ser. No. 247,707).

[74] In re Owens-Corning Fiberglas, F.2d (Fed. Cir. 1985).

[75] *Id.*

ing by competitors upon a showing of secondary meaning.[76] The Lanham Act thereafter codified the registration criteria for all trademarks, announcing that no trademark would be refused registration if it distinguished the applicant's goods, unless a specific exception applied; and color was not included in the listing of exceptions. The Court quoted the United States Supreme Court's interpretation of Congressional intent, saying:

> Congress determined that "a sound public policy required that trademrks should receive nationally the greatest protection that can be given them."[77]

The essential statutory principle of the Lanham Act as stated by the Court was, therefore, that:

> ... a mark ... capable of being or becoming distinctive of applicant's goods in commerce ... is capable of serving as a trademark.[78]

Owens-Corning's trademark the color pink clearly satisfied this test.

The opinion by the Court stated that the effectiveness of the Lanham Act registration statute was not contingent upon the application of the color depletion theory. The opinion also announced that:

> ... when the color applied to goods serves a primarily utilitarian purpose, it is not subject to protection as a trademark[79]

but this did not preclude registration of a color trademark which primarily serves to distinguish the applicant's goods in the marketplace, and incidentally has functional characteristics. This is no different than the prohibition against registration for any trademark (word, symbol, shape, etc.) which is primarily functional; a trademark must be primarily capable of distinguishing the applicant's goods, in order to be registrable. The Court cited cases in which color trademarks primarily served a utilitarian function, and where registration was accordingly refused despite the existence of secondary meaning.[80] The Court of Appeals for the Federal Circuit, therefore, established the rule (supported by accordant case law) that secondary meaning may render a color trademark registrable which otherwise would be non-

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[76] Clifton Mfg. Co. v. Crawford-Austin Mfg. Co., 12 S.W.2d 1098 (Tex. Civ. App. 1929). See *Yellow Cab Transit Co. v. Louisville Taxicab & Transfer Co., supra.*

[77] Park 'N Fly, Inc. v. Dollar Park and Fly, Inc., 105 S.Ct. 658, 664.

[78] In re Owens-Corning Fiberglas, F.2d (Fed. Cir. 1985).

[79] *Id.*

[80] In re Pollak Steel Co., 314 F.2d 566 (CCPA 1963).
Sylvania Electric Products, Inc. v. Dura Electric Lamp Co., 247 F.2d 730 (3rd Cir. 1957).

registrable because of the color depletion theory or because the trademark is incidentally functional.

The Court concluded its analysis of whether a color may serve as a trademark by stating:

> [o]ver the thirty-nine years of the Lanham Act, it has become established that the color of goods, as other indicia, may serve as a trademark if the statutory requirements are met.[81]

The Court agreed with the Trademark Trial and Appeal Board that:

> ... deciding likelihood of confusion among color shades ... is no more difficult or subtle than deciding likelihood of confusion where word marks are involved[82]

and that, in Owens-Corning's case, the color pink:

> ... serves the classical trademark function of indicating the origin of the goods, and thereby protects the public ...[83]

The Court continued its analysis of the Board's decision by reviewing the evidence submitted by Owens-Corning under 15 U.S.C. §1052(f), saying that sufficient proof of established secondary meaning would render the trademark registrable. The Court concluded that Owens-Corning's prolonged, continuous, exclusive use of the color pink, the vast sums of money spent on advertising in which the color pink was emphasized, the use of promotional literature and exposure to the public through radio and television, a trade publication article equating the color pink with Owens-Corning's insulation products, and consumer survey data indicating the public's association of pink with Owens-Corning's products, combined to demonstrate that the Board's decision was "clearly erroneous."

IV. COLOR AS A TRADEMARK

A. *Bars to Registrability*

1. Nondistinctiveness

Section 2 of the Lanham Act permits registration on the principal register of any:

> ... trademark by which the goods of the applicant may be distinguished from the goods of others ...[85]

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[81] In re Owens-Corning Fiberglas, F.2d (Fed. Cir. 1985).

[82] *Id.*

[83] *Id.*

[85] 15 U.S.C. §1052.

The intent of this statute is to preclude the registration of a mark that does not function in a trademark manner, as defined in Section 45 of the Lanham Act (15 U.S.C. §1127), because it is nondistinctive.

This threshold requirement for registration must be met for all proposed trademarks, including colors. The United States Patent and Trademark Office has consistently refused registration for trademarks which were not distinctive.[86]

2. Statutory Bars 15 U.S.C. §1052(a)-(e)

The Lanham Act establishes statutory bars to the registration of certain marks. These barriers are summarized as follows:

1) immoral, deceptive, scandalous, or disparaging matter;
2) flags, coats of arms, or insignia of any government;
3) names, portraits or signatures of living individuals (except with written consent) or deceased Presidents of the United States during the lives of their widows (except by written consent of the widow);
4) marks likely to be confused with trademarks previously used in the United States or already federally registered; and
5) marks which are descriptive or deceptively misdescriptive, primarily geographically descriptive or deceptively misdescriptive, or surnames.[87]

Color is not included in the list of statutory bars. A trademark consisting of a color or combination of colors is, therefore, statutorily barred from registration only if it falls within one of the classifications listed above.

It is difficult to imagine a color which is also characterized by one of the bars of 15 U.S.C. §1052(a)-(e); however, at least one court has reached such an association. In *Southwestern Bell Telephone Company v. Nationwide Independent Directory Service, Inc.* the court initially decided that the plaintiff's trademark, the Yellow Pages, could not be registered, nor could the plaintiff's practice of printing advertisements on yellow pages be protected from the identical conduct by a competitor, because the term "Yellow Pages" and the concept of

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[86] "... [M]ere coloration of the various panels of an ordinary basketball is not sufficiently distinctive to be the subject of a statutory trademark." American Basketball Association v. AMF Voit, Inc., 358 F.Supp. 981, 985 (SD NY 1973).

"The court finds that plaintiff's color format is not inherently distinctive." Plastilite Corporation v. Airlite Plastics Co., 390 F.Supp. 1141, 1147 (Neb. 1975).

[87] 15 U.S.C. §1052(a)-(e).

"yellow pages" literally described the devices used by the plaintiff to distinguish its product (barred under 15 U.S.C. §1052(e)). The court subsequently determined, however, that the plaintiff's trademark and its practice of using yellow paper had acquired secondary meaning in the marketplace. Defendant was enjoined, therefore, from using yellow-colored paper for its directory classified section, and from use of the mark "Yellow Pages."[88]

Those trademarks statutorily barred from registration under 15 U.S.C. §1052(a)-(d) cannot be converted to registrable trademarks by the application of 15 U.S.C. §1052(f); however, a trademark similarly statutorily barred from registration under 15 U.S.C. §1052(e) may be promoted to a registrable trademark through secondary meaning under 15 U.S.C. §1052(f).

3. Functionality

The courts have developed a theory for barring the trademark registration of a color if it is functional in nature. Whether a mark is functional may be determined according to the definition of functionality as expressed in the Restatement of Torts:

> A feature of the goods is functional . . . if it affects their purpose, action or performance, or the facility or economy of processing, handling or using them.[89]

Several applications for the registration of a color have been denied because the colors served a primarily utilitarian purpose in the manufacture or sale of the products to which the colors had been applied.[90]

The Lanham Act prescribes registration on the principal register for any trademark which distinguishes the applicant's goods, and which is not barred by 15 U.S.C. §1052(a)-(e). Therefore, a trademark consisting of a color which is primarily distinctive of the applicant's

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[88] Southwestern Bell Telephone Company v. Nationwide Independent Directory Service, Inc., 371 F. Supp. 900 (WD Ark 1974).

[89] Restatement of Torts, §742.

[90] See *Life Savers Corporation v. Curtiss Candy Co.* at note 25, *supra.*

See *Deere & Co. v. Farmhand, Inc.* at note 66, *supra.*

Pink stomach remedy was " . . . designed to present a pleasing appearance to the customer and to the sufferer" and therefore, primarily functional. Norwich Pharmacal Company v. Sterling Drug, Inc., 271 F.2d 569 (2nd Cir. 1959).

Manufacturer of pale blue colored medicinal capsule could not prevent competitor from using the identical coloration. "[The blue color has] come to symbolize not merely the source but also the drug itself and its therapeutic effects." Ives Laboratories, Inc. v. Darby Drug Co., Inc., 455 F.Supp. 939, 949 (ED NY 1978).

goods, but is otherwise nonregistrable due to incidental functionality, and which does not fall within 15 U.S.C. §1052(a)-(d), may nevertheless become registrable under 15 U.S.C. §1052(f) upon proof of secondary meaning.[91]

4. Color Depletion

In early cases dealing with attempts to register color as a trademark, protection was refused based upon the theory of color depletion.[92] This theory states that there are a limited number of colors and that one who colors his product cannot then exclude others from using that same color, or the number of available colors would soon be depleted. The concept was announced in *Campbell Soup Co. v. Armour & Co.* as follows:

> If [the defendant] may thus monopolize red in all of its shades, the next manufacturer may monopolize orange in all its shades and the next yellow in the same way. Obviously, the list of colors would soon run out.[93]

Color depletion is not one of the bars included in 15 U.S.C. §1052(a)-(e). Therefore, according to 15 U.S.C. §1052(f), a trademark which would otherwise be denied registration based upon the color depletion theory, and which does not fall within 15 U.S.C. §1052(a)-(d), may nevertheless become registrable upon a showing of secondary meaning.

B. *Registration of a Color Having Secondary Meaning*

Color as an element of a trademark having an arbitrary shape or design has consistently been afforded protection through federal registration.[94] This is simply a recognition of the fact that any trademark which inherently distinguishes the applicant's goods in the

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[91] "To say that there are functional reasons for the colors adopted by plaintiff... is not to rule out the possibility that those colors could have acquired secondary meaning under the Lanham Act." Ideal Toy Corp. v. Chinese Arts & Crafts Inc., 530 F.Supp. 375, 378 (SD NY 1981).

[92] See *Campbell Soup Co. v. Armour & Co.*, note 25, *supra*.

"The primary colors, even adding black and white, are but few. If two of these colors can be appropriated for one brand of tipped matches, it will not take long to appropriate the rest." Diamond Match Co. v. Saginaw Match Co., 142 F. 727, 729 (6th Cir. 1906).

[93] See *Campbell Soup Co. v. Armour & Co.*, note 25, *supra*.

[94] "Whether mere color can constitute a valid trademark may admit of doubt. Doubtless it may, if it be impressed in a particular design, as a circle, square, triangle, a cross, or a star". A Leschen & Sons Rope Company v. Broderick & Bascom Rope Company, 201 U.S. 171, 168 (1906).

"Color is a perfectly satisfactory element of a trademark if it is used in combina-

marketplace, and is not statutorily barred, is worthy of registration.[95] Inherently distinctive trademarks are eligible for protection without proof of secondary meaning.

Color may also be registered as a trademark if it primarily distinguishes the applicant's goods[96] (even thought it is incidentally functional), has acquired a secondary meaning[97], and is not statutorily barred.[98]

The public may immediately perceive an inherently distinctive trademark as an indication of source; hence, the immediate registrability of such trademarks. However, a color, or other not-inherently-distinctive mark, when initially adopted, usually conveys a non-trademark meaning. Over time, and through advertising and use in a trademark manner, a not-inherently-distinctive trademark (such as a color) may acquire another (secondary) meaning for the consuming public. When this shift in consumer perception occurs, the trademark becomes registrable. Although the legal term for this attribute is "secondary meaning," the trademark must actually serve a primary purpose: as an indication of source in the mind of the public.

Whether a trademark has acquired secondary meaning depends upon the combined effects of several factors.

> No precise guidelines are applicable [to prove secondary meaning] and no single factor is determinative. Each case must be decided on its own facts, considering such elements as length and exclusivity of use, sales levels, extent of advertising and promotion, etc.[99]

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tion with a design in the form, for example, of a picture or geometric figure." *Campbell Soup Co. v. Armour & Co., supra,* at 798.

"Generally speaking, the protection of color as an element of a trademark is limited to instances in which it is impressed in a particular design or has acquired a secondary meaning of its own". Volkswagenwerk Aktiengesell-Schaft v. Rickard, 492 F.2d 474, 479 (5th Cir. 1974).

"Color in combination with a distinctive arbitrary design can be a valid trademark". Quabaug Rubber Company v. Fabiano Shoe Co., Inc., 567 F.2d 154, 161 (1st Cir. 1977).

See Hygienix Products Co. v. Coe, 85 F.2d 265, 266-7 (D.C. Cir. 1936); Barbasol Co. v. Jacobs, 160 F.2d 336, 338 (7th Cir. 1947); *Life Savers Corporation v. Curtiss Candy Co., supra,* at 9.

95 15 U.S.C. §1052.

96 *Id.*

97 15 U.S.C. §1052(f).

98 15 U.S.C. §1052(a)-(d).

99 Ralston Purina Company v. Thomas J. Lipton, Inc., 341 F.Supp. 129, 133 (SD NY 1972).

> When these factors combine to cause an association by consumers of a mark with certain goods, distinguishing them from other goods, the mark has acquired a secondary meaning. That secondary meaning is entitled to protection by the courts.[100]

There have been several cases in which colors were used to indicate the source of goods or services, and where those colors initially portrayed a non-trademark meaning to the public. The marks were later afforded protection from unfair competition, but only after acquiring secondary meaning.[101] Other cases, involving situations similar to Owens-Corning's use of the color pink, have been decided in favor of allowing the registration of colors as trademarks upon a showing of secondary meaning.[102]

V. CONCLUSION

Owens-Corning's trademark, the color pink as applied uniformly to fibrous glass insulation products, was eventually granted registration in the United States Patent and Trademark Office on the principal register. The Court of Appeals for the Federal Circuit correctly resolved the issues in the case, and reversed the decision by the Trademark Trial and Appeal Board which had affirmed the final refusal by the Trademark Examining Attorney. The Court determined that the trademark, a not-inherently-distinctive color, had acquired secondary meaning in the marketplace. Because color is not statutorily barred as a trademark by 15 U.S.C. §1052(a)-(d), registration was granted under 15 U.S.C. §1052(f).

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[100] Armstrong Cork Company v. Armstrong Plastic Covers Company, 434 F.Supp. 860, 870 (ED Missouri ED 1977).

[101] See Yellow Cab Transit Co. v. Louisville Taxicab & Transfer Co., and Ex parte Ohio Knife Co., *supra.*

The use of various colors for differing thicknesses of plastic shims was protected by the District Court, saying: "We therefore conclude, as a matter of law, that Artus' plain, unmarked colors are ... entitled to protection if secondary meaning has attached." Artus Corporation v. Nordic Co., Inc., 512 F.Supp. 1184, 1189 (WD PA 1981).

[102] See *In re Ritchie Manufacturing Co.,* and *In re The AFA Corporation, supra.*

Is a Plant Patent a Form of Copyright?

DAVID BENNETT BERNSTEIN*

I. INTRODUCTION

The idea I wish to pursue here is whether plant patents are actually a form of copyright. While plant patents and copyrights appear to be fairly distinct, an examination of the relevant case law and statutes shows that this distinction is quite deceiving. However, before we examine the relationship between plant patents and copyrights, a more basic understanding of patent and copyright law is necessary.

II. PATENTS VERSUS COPYRIGHTS: THE CRITICAL DISTINCTION

Generally, patents differ from copyrights in their life span, application examination, subject matter, and, presumably, in the scope of protection that is offered.

As for the first distinction, life span, a patent protects for fourteen or seventeen years,[1] while a copyright currently remains valid for fifty years beyond the lifetime of the author.[2]

A second way in which patents can be distinguished from copyrights is in the examination procedure prior to the grant of protection. While the examination of a patent application may take several years, the process for obtaining copyright protection is much quicker. With copyrights, there is no examination as such. As soon as the work is fixed in a tangible medium, it bears a copyright which may be registered with the Register of Copyrights. If the work meets some

*© 1985 David Bennett Bernstein. Juris Doctor candidate, Franklin Pierce Law Center, 1987. (This paper is being submitted for consideration in the Nathan Burkan Memorial Copyright Competition.)

[1] 35 U.S.C. §154 (1984) grants a term of 17 years for utility and plant patents, while 35 U.S.C. §173 (1984) grants a term of 14 years for design patents.

[2] 17 U.S.C. §302(a) (1977).

minor statutory provisions and is of copyrightable subject matter, as determined by the Register, a certifcate of copyright registration shall be issued to the applicant.

The examination procedure for a plant patent appears to be much more similar to that for copyrights than that for design and utility patents. After receiving the application, the Patent Office transfers it to the Department of Agriculture where specialists determine if the application is for a plant that is identical to other, known plant varieties. Questions of obviousness and utility, as required for utility and design patents, are not considered. Furthermore, a search of the United States Patent Quarterly has revealed no cases in which an applicant is appealing the rejection of a plant patent application for issues other than subject matter. This indicates that the granting of a plant patent is similar to that of a copyright in that the examination procedure is used only to determine if the subject matter of the application is proper.

Traditionally, the subject matter dichotomy between copyrights and patents has been stated as follows: copyright protection is extended to protect "original works of authorship fixed in any tangible medium of expression," as specified in 17 U.S.C. 102(a), while patent protection applies only to the "useful Arts."[3] Furthermore, rather than offering protection for ideas, copyrights protect only the specific *expression* of ideas. The result is that others may use your idea, but they must express it in a manner different than that in which you have expressed it. The problem of differentiating between the subject matter entitled to patent protection and that entitled to copyright protection has been at issue since at least 1879, when the Supreme Court stated in *Baker v. Selden:*

> We observed that Charles Selden, by his books, explained and described a peculiar system of bookkeeping, and illustrated his method by means of ruled lines and blank columns, with proper headings on a page, or on successive lines. Now, whilst no one has a right to print or publish his book, or any material part thereof, as a book intended to convey instruction in the art, any person may practice and use the art itself which he has described and illustrated therein. The use of the art is a totally different thing from a publication of the book explaining it. The copyright of a book on bookkeeping cannot secure the exclusive right to make, sell, and use account books prepared upon the plan set forth in such book.[4]

However, when the subject matter of design patents is compared to that of copyrights, the clear distinction between the two forms of pro-

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[3] U.S. CONST. art. I, sec. 8, cl. 8.

[4] *Baker v. Selden,* 101 U.S. 99, 104; 25 L.Ed. 841, 843 (1879).

tection begins to fade. This idea was best articulated in *Mazer v. Stein,* in which the petitioners stated:

> Fundamentally and historically, the Copyright Office is the repository of what each claimant considers to be a cultural treasure, whereas the Patent Office is the repository of what each applicant considers to be evidence of the advance in industrial and technological fields.[5]

Rejecting the distinction between a "cultural treasure" and an "industrial and technological advance" as hard to define, the court in *Mazer* found the key distinguishing feature between patents and copyrights to be the scope of protection.

> Unlike a patent, a copyright gives no exclusive right to the art disclosed; protection is given only to the expression of the idea, not the idea itself... The copyright protects originality rather than novelty or invention — conferring only 'the sole right of multiplying copies.' Absent copying, there can be no infringement of copyright.[6]

As for the scope of protection offered, a patent grants the right to exclude even independent inventors from making, using, or selling its subject matter,[7] whereas copyrights offer only protection against so-called "free-riders", *i.e.,* parties who appropriate an author's expression of an idea by taking it directly or indirectly from copyrighted material.[8] Also, the subject matter is usually quite distinct.

As certain areas of technology progressed, the traditional boundaries of intellectual property protection have had to adapt. The allowance of copyrights on the masks used for integrated circuit manufacture, certainly objects possessing utility, is the most recent example of this.[9] The erosion in the copyright/patent dichotomy, in retrospect, is much older than either *Mazer* or the history of micro-electronics.

III. PLANT PATENT HISTORY

Prior to 1930, Congress refused to protect the contributions made by plant breeders on the ground that to do so would be to grant

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[5] Mazer v. Stein, 347 U.S. 201, 215; 74 S.Ct. 460, 469; 98 L.Ed. 630, 641; reh'g denied, 347 U.S. 949, 74 S.Ct. 637, 98 L.Ed. 1096 (1954).

[6] 347 U.S. at 217; 74 S.Ct. at 470; 98 L.Ed. at 642.

[7] 35 U.S.C. §271(a) (1984).

[8] Schroeder v. William Morrow and Co., 566 F.2d 3 (7th Cir. 1977). (Copyright infringed by compilers of book who simply copied, without any independent effort or verification, virtually all names and addresses appearing on 27 of 63 pages of plaintiff's gardening directory.)

[9] This is the result of the Semiconductor Chip Protection Act of 1984, (Act of November 8, 1984 [Public Law 620, 98th Congress, Title III, Sec. 301; 98 Stat.L. 3347]), which added Chapter 9 — Protection of Chip Products to Title 17 of the U.S. Code, thereby allowing copyright protection on mask works for integrated circuits.

monopoly rights to works of nature. The breeders of plant hybrids, of course, felt that this was fundamentally unfair. Their argument was eloquently stated by the president of the American Genetic Association, Dr. David Fairchild, in his article, "Making of a Plant Hybrid," published in the February, 1927, *Journal of Heredity:*

> But all these things remain still in the lap of the gods! The hybrid is made; let it take its course. It shall have to, since the Patent Laws of America will give me no assistance. Were they fair and designed to support invention in other fields than in those of mechanical things, and did they fulfill the objects laid down in the Constitution, matters might be quite otherwise and I might awake someday, as inventors have, to find myself drawing a royalty from my Actinidia Hybrid. Let us hope that someday conditions can be changed so that plant breeders, who are adding countless billions to the wealth of the world, may receive something more substantial than the casual recognition which people generally accord to those who give them something for nothing.[10]

In response to the injustice voiced by Dr. Fairchild and others, Congress, in 1930, passed the Plant Patent Act which amended the existing patent law to give "patent" rights to one "who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than a tuber-propogated plant."[11] Plant patent protection was included in the Patent Act of 1952, and was amended to its present form as 35 U.S.C. 16 by an Act of Congress approved September 3, 1954.[12] This section states:

> Whoever invents or discovers and asexually reproduces any distinct and new variety or plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propogated plant or a plant found in an uncultivated state, may obtain a patent therefor, subject to the conditions and requirements of this title.
>
> The provisions of this title relating to patents for inventions shall apply to patents for plants, except as otherwise provided.

IV. PLANT PATENTS AND COPYRIGHTS: THE CLOSE RELATIONSHIP

The idea I wish to pursue here is whether it would have been more accurate to name the 1930 law the plant "copyright" act. The reason is related to the test for infringement. As the Second Circuit stated in *Orgel v. Clark Boardman Co.:*

> Appropriation of the fruits of another's labor and skill in order to pub-

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[10] As quoted by R.A. STARR, THE FIRST PLANT PATENTS 11, (New York: Educational Foundations, Inc., 1934).

[11] Public Law 245, 71st Congress, c. 312; 46 Stat.L. 376 (1930).

[12] Public Law 775, 83rd Congress, c. 1259; 68 Stat.L. 1190 (1954).

> lish a rival work without the expenditures of the time and effort required for the independently arrived at results is copyright infringement.[13]

For a work to infringe upon a copyrighted work, the plaintiff must prove that the alleged infringing work was taken from the original work and not created independently or drawn from an independent source, and that protected elements of the copyrighted work have been taken.

Thus, unlike design and utility patents which prevent independent inventors from making, using, and selling an invention, a holder of a copyright must show that the alleged infringer had access to the copyrighted work and actually took part of it. This appears to be the key distinction between copyright and patent law. A copyright only excludes "free-riders" while a patent excludes "all-comers".

It is upon this point that the tie-in with plant patents occurs. The relevant court holdings have suggested no infringement of a plant patent can occur without an actual, physical taking from the plant discovered by the patentee.[14]

In *Ex parte Weiss* the Patent Office Board of Appeals, in considering the scope of a design patent on a coffee grinder, stated in dicta, "It appears that an infringer of a plant patent must not merely copy from the patentee, he must use stock obtained from, presumably directly or indirectly, the patentee."[15] This passage is key to the argument that a plant patent is really a form of copyright because by requiring a taking from the original protected subject matter, the Board of Appeals is granting the same level of protection. Furthermore, by requiring that a taking occur, one who independently discovers a plant mutation that is the subject matter of a patent is equally free to exploit the plant as is one who independently expresses an idea in the same manner as previously copyrighted subject matter.

The earliest cases dealing with plant patent infringement expressed a different viewpoint. In *Cole Nursery Co. v. Youdath Perennial Gardens, Inc.*, the court considered the plaintiff's claim of infringement upon Plant Patent No. 110.[16] The court found the patent

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[13] Orgel v. Clark Boardman Co., 301 F.2d 119, 120. cert. denied 371 U.S. 817, 83 S.Ct. 31, 9 L.Ed.2d 58 (1962). See also *Schroeder, supra.*

[14] This idea, and in fact, the idea for this article was suggested by Professor Thomas G. Field, Jr. *See,* Field, *Brief Survey of and Proposal for Better Reconciliation of the Options in Patent, Trademark, Copyright, and Related Law,* 26(2) IDEA 57 (1985), in footnote 72 at page 71.

[15] Ex parte Weiss, 159 U.S.P.Q. 122, 125 (P.O. Bd.App. 1967).

[16] Cole Nursery Co. v. Youdath Perennial Gardens, Inc., 31 U.S.P.Q. 95, 17 F.Supp. 159 (N.D. Ohio 1936).

invalid on the grounds that the plant had been introduced to the public prior to the enactment of the 1930 Plant Patent Act which gave protection only to subsequently produced plants. That notwithstanding, the plaintiff had argued that his plant could not be duplicated save from cuttings taken from the orignal plant. Judge Jones of the District Court for the Northern District of Ohio disagreed stating, "I feel unable to say it would be impossible to reproduce or duplicate substantially the character of the plant of the plaintiff without cuttings from the Horvath plants." However, in his next sentence, Judge Jones tied infringement with appropriation with the following words: "Conceding that the plants of the plaintiff and of the defendants have similar characteristics, the proof is not clear and convincing that the plaintiff must have appropriated plants or cuttings belonging to Horvath or his assignee." Thus, even though Judge Jones refused to declare that a taking was necessary for infringement, he did state that absent clear and convincing proof of a taking in this case he could not find infringement of the plant patent.

In the case of *Kim Bros. v. Hagler,* the issue was whether a tree grown by the defendant infringed upon the plaintiff's patent.[17] In this case the plaintiff asserted that the defendant had infringed his patent on Sun Grand variety nectarines by grafting a Sun Grand branch onto a tree located across the road from defendant's orchard. Chief Judge Yankwich held for the defendant on the grounds that clear and convincing proof of a taking had not been shown stating, "There is no credible evidence that the appearance of the branch on what we called, at the trial, the 'accused tree', in an orchard other than that of the defendant, and situated across the road from his, was the result of any grafting or budding of a branch or bud from the plaintiff's patented tree."[18] In stating such, Judge Yankwich is saying that without a taking, there has been no infringement. This is the same standard required in copyright law, where the plaintiff must prove that the defendant has appropriated from the source to show infringement.

The judge then declared that as long as a mutation was a possibility, "... the evidence in the record warrants the conclusion that we have before us one such rarity, i.e., trees grown by the defendant not from grafts or buds appropriated from the plaintiff's patented tree, but as a sport or mutation."[19] He further stated, in what is analogous to independent creation in copyright law:

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[17] Kim Bros. v. Hagler, 120 U.S.P.Q. 210, 167 F.Supp. 665 (S.D. Cal. N.D. 1958).

[18] 120 U.S.P.Q. at 212.

[19] 120 U.S.P.Q. at 214.

> In sum, nature has bestowed on the defendant, agriculturist one of its rare gifts, a plant mutation. He, having grown from it the variant trees by the asexual means provided in the statutes, should not be deprived of the increments of the gift and of his own skill in growing from it a new plant producing a different fruit of the nectarine variety, by a broad judicial interpretation of the limited claim in the plaintiff's patent.[20]

Here, copyright law is again seen to be equal in scope to plant patent law because if a party independently creates or discovers a copyrighted work or patented plant he or she will not be prevented from exploiting the article.

The only recent case that even suggests a possibility contrary to *Kim Bros.* is *Pan-American Plant Co. v. Matsui.*[21] In this case, the court held that the defendant's yellow mutation of the variety "May Shoesmith" chrysanthemum was substantially different from the plaintiff's patented plant. Earlier in the suit however, the defendant's motion for summary judgment on the ground that the alleged infringing plant in this case was not asexually reproduced from the patented plant was denied. In footnote 4 on page 695 of the case, it is stated:

> The Court concluded that the defendant's interpretation of the Plant Patent Act is incorrect, and that the Act bars the asexual reproduction and sale of any plant which is the same variety (i.e., has the same essential characteristics) as the patented plant, whether or not the infringing plant was originally cloned from the patented plant.

As the plaintiff's infringement claim was denied on other grounds, the court declined to discuss the asexual reproduction question further. While the idea that a plant with essentially the same characteristics as a patented plant, whether or not cloned from the patented plant, infringes the patent runs contrary to the prior holdings, it was stated as dicta in a footnote and cannot be said to overrule the prior case law.

V. CONCLUSION

It can be seen that while copyrights and plant patents offer protection to quite different subject matter, plant patents are fundamentally more similar to copyrights than to the other kinds of patents. Insofar as access to and copying of a protected original is necessary for infringement of both copyright and plant patent, each offers the same basic protection. Further, as plant patents offer no protection against independently created subject matter, they are quite distinct from utility and design patents which prohibit the

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[20] Note 19, *supra.*

[21] Pan-American Plant Co. v. Matsui, 433 F.Supp. 693 (N.D. Cal. 1977).

manufacture, use, and sale of protected subject matter even if independently created.

Thus, the traditional patent/copyright dichotomy has contained wormholes for much longer than most people believe.[22] Neither *Mazer,* nor the electronics revolution of the past two decades challenge it more fundamentally than the fifty-five-year-old protections offered on the natural mutations of plants.

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[22] Analogies to copyright protection appear in other areas. For example, New Drug Applications, (NDA's), filed with the FDA are offered similar protections. An NDA is a synthesis and analysis of all data collected by a drug sponsor during testing, and may be several hundred volumes long. Needless to say, the resources necessary to compile a report of this type are considerable. If a competing drug company were allowed to use another sponsor's NDA, the economic advantages are clear; the competitor would receive huge amounts of data at a cost far below that of doing the actual research. Thus, it would violate the principles of fairness to allow a competitor to use another sponsor's NDA in seeking approval of a competing drug.

If, on the other hand, the competitor compiles its data independently, no wrong has been committed, even if the competitor's NDA is essentially the same as that of the original sponsor. Thus, like a copyrighted work, to infringe upon an NDA, you must directly or indirectly take from it. The recent amendments to the Federal Food, Drug, and Cosmetic Act have included a provision offering protection on NDA's for a period of five years. (In certain cases, the protection last only four years.) See, 21 U.S.C. 355(c)(3)(D)(ii). This protection is of the same scope as copyright, but with a greatly accelerated duration.

THE NEW PATENT LAW OF THE PEOPLE'S REPUBLIC OF CHINA (PRC): EVIDENCE OF A SECOND CHINESE "RENAISSANCE"?

WILLIAM E. BEAUMONT*

I. INTRODUCTION

Since the fall of the Gang of Four, the People's Republic of China (PRC) has initiated a process of strengthening the country's legal structure in order to facilitate an ambitious modernization program. Perhaps the earliest significant recognition of the fundamental importance of law in the stabilization of society by the PRC occurred with the Third Plenary Session of the 11th Central Committee of the Chinese Communist Party, held at the end of 1978.[1] The communique issued as a result of this session emphasized the importance of strengthening the socialist legal system in the PRC. However, perhaps the most significant legal development has been the adoption in 1982 of a new state constitution and a new party charter for the Chinese Communist Party. It is noteworthy that both documents stress the importance of law.

Furthermore, the Chinese leadership seems to be in general agreement that foreign trade laws are an essential component to their modernization program, which seems to rely heavily on foreign trade and the import of advanced technology and investment capital.[2]

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[1] See "Recent Chinese Economic Legislation" by Dr. Tao-tai Hsia, at 8, submitted to the House of Representatives, Special Subcommittee on U.S. Trade with China, Committee on Energy and Commerce, in Subcommittee on September 6, 1984.

[2] *Id.*, at p. 9.

Among the new laws promulgated to facilitate foreign trade and import advanced technology is the new Patent Law which was approved by the Standing Committee of the National People's Congress on March 12, 1984, and which became effective on April 1, 1985. Although the new Patent Law represents an encouraging development in the PRC, the new law poses many questions for foreign businesses. This paper will consider several sections of the new Patent Law and will address some of the questions arising therefrom.

II. A BRIEF HISTORY OF CHINESE SCIENCE AND TECHNOLOGY

Under the leadership of Deng Xiaoping, China has the pre-eminent goal of realizing "the four modernizations": the strengthening of the socialist state through modern industry, science and technology, agriculture and defense.[3] In fact, it has been speculated that the dream of Deng is to have all the programs essential to the four modernizations well underway prior to his death or his political retirement.[4] Yet it is somewhat ironic that a country with such a presently acknowledged need of advanced foreign technology, evidences classical literature which appears to have paid more attention to recording and honoring ancient inventors and innovators than any other ancient culture.

For example, the "Shih Pen", which is believed to have been first assembled in Chao State between 234 B.C. and 228 B.C., recites the names and deeds of legendary or semi-lengendary cultural heroes and inventors such as Su Sha for inventing salt-making; Hsi Chung for inventing carts and carriages; and Chiu Yao for inventing the rotary millstone.[5] Undoubtedly some of the names are fictitious, while others are historical. Nevertheless, the record is indicative of the early recognition by the Chinese of the important role of inventors and innovators in advancing society and improving the quality of life.

More profoundly, during the 11th century the domination of Buddhism over the Chinese world, commencing from the 5th century, came to an end. With this recession, Chinese civilization entered an era of practical rationalism based on experiment in every realm of

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[3] *China's New Patent Law and Other Recent Legal Developments* Report prepared by the Far Eastern Law Division of the Library of Congress for the use of the Special Subcommittee on U.S. Trade with China of the Committee on Energy and Commerce, U.S. House of Representatives, at p. 5 (July 1984) U.S. Government Printing Office.

[4] *Id.*, at p. 16.

[5] "Learn from the Waters: Time, Change and Technology in China," *CHEMTECH*, J. Needham, at 272 (May, 1985).

knowledge — arts, technology, natural sciences, mathematics, politics and institutional studies.[6] Further, with the discovery of wood-block printing, which first appeared during the course of the 8th century, a means of reproducing written texts and drawings rapidly and inexpensively became available.[7] Although the first known examples of wood-block printing in China, dating from the end of the 8th century, consist of Buddhist pictures accompanied by short texts, by 1027, available works on medicine and pharmacy were revised and printed to reach a wider audience.[8] Furthermore, with wood-block printing it was possible to produce remarkably high quality illustrations, so that from the very beginning of wood-block printing, the majority of Chinese books, ranging from technical treatises to architectural studies, were provided with illustrations.[9]

During the 11th to 13th centuries, in the Sung age, remarkable progress was made in China in medicine, geography, mathematics and astronomy. For example, during this period, the first known treatise on forensic medicine was published entitled the Hsi-yuan-lu by Sung Tz'u. Further, a universal geographical encyclopedia of 200 chapters published in 979, was followed in 1010, by the publication of an illustrated geography of the Sung empire in 1566 chapters! In fact, it has been stated that the Chinese cartography of the Sung era achieved a precision and accuracy never before attained.[10]

The period between the 11th and 13th centuries has also been recognized as one of the greatest periods in the history of mathematics in China. During this epoch, algebra was developed. "In fact, Ch'in Chiu-shao, who died in 1262, was the first Chinese mathematician to conceive and utilize the concept of "zero". Although, it appears that this discovery occurred almost simultaneously in Italy,[11] it may represent the first appearance of the concept of "zero" in mathematics.

The Sung age is also renowned for the historical encyclopedias produced therein. Particularly worthy of note is the T'ung-chih. This col-

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[6] *A History of Chinese Civilization,* by J. Gernet, translated by J.R. Foster; see, in particular, Ch. 15 "The Civilization of the Chinese 'Renaissance'" (Cambridge University Press 1985). It is quite interesting that a similar observation has been made concerning the decline of Christian ideological domination in Europe and the simultaneous flowering of the European Renaissance and, eventually, the Enlightenment. See *The Western Intellectual Tradition,* by J. Bronowski (Harper).

[7] *A History of Chinese Civilization, id.,* at 333.

[8] *Id.,* at 335.

[9] *Id.,* at 336.

[10] *Id.,* at 338.

[11] *Id.,* at 341.

lection of monographs dealing with phonetics, geography, botany, zoology and archeology, to name a few subjects, was written by the creative and far-sighted thinker Cheng Ch'iao (1104-1162).[12]

In short, the 11th to 13th centuries in China represented a period of vigorous intellectual and cultural growth. In fact, in comparing the quantity and quality of trade, levels of attained technology, political organization, scientific knowledge and the arts of Western civilization, i.e., Europe, to those of China during this period, one is forced to concede Europe's relative backwardness. Moreover, it has been suggested that many of the major Chinese inventors and innovations — such as paper, the compass, the application of the watermill to looms, the wheelbarrow, gunpowder, the spinning-wheel, cast iron and wood-block printing, which ultimately gave rise to movable type — made possible the advance of "modern times" in the Western world.[13]

Clearly, any perception that traditional Chinese culture was static or stagnant is based upon occidental misconception. For various reasons, be it civil war or foreign militaristic or economic invasion, Chinese civilization remained untransformed by many of its innovations. Yet, it has been noted that the effect of these innovations upon the social systems of Europe, once they arrived there, was truly "earth-shaking." For example, it has been noted that five centuries of gunpowder use in China left society largely unmoved. The mandinarate or civil service remained essentially the same. However, in the West, the introduction of gunpowder is estimated to have contributed strongly to the overthrow of military aristocratic feudalism and the death of the feudal castle.[14]

It is somewhat curious that despite the present acknowledged need for advanced technology, observant travelers, past and present, through the PRC have noted the many beautiful votive temples dedicated to ordinary men and women who, through their creative efforts, have conferred benefits on posterity. It has been noted that practically every branch of science and technology is represented in temples erected to the memory of the creative achievers. It is particularly noteworthy that these temples were constructed not only for men, but also for women. One such example is a description given of a temple constructed for Huang Tao P'o, a famous textile technologist of the late 13th century.[15]

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[12] *Id.*, at 344.

[13] *Id.*, at 347.

[14] See note 5, at 276.

[15] *Id.*, at 273.

Considering all of the above, it is clear that the Chinese have long appreciated the importance of technical progress. Although the expression of this recognition was curbed, most recently, during the "Cultural Revolution", it is hoped that the re-emergence of this recognition might pave the way for a second Chinese "renaissance."

III. THE PARTICULAR CHALLENGE OF ENCOURAGING INNOVATION UNDER COMMUNISM

As noted above, many reasons can be given for the failure of modernization in China. However, China certainly did not lack a scientific tradition. Moreover, in addition to exporting many its innovations, China also absorbed some of the new developments of Western science. Yet, the failure of China to modernize is all too apparent. There appears to be some consensus that one of the major reasons for China's failure to step full stride into the Industrial Era was the military and economic pressure of foreign imperialism.[16]

In large part, Western merchants in China, having various acquired economic privileges, greatly weakened the Chinese economy. For example, from 1862 onwards the foreign shipping companies, mainly British and American, absorbed more and more of the river and sea trade carried until then by Chinese boats. Consequently, the largest profits from the river and the sea traffic went to foreign companies, while many of the Chinese carriers were put out of work. Chinese responses to such domination were often countered viciously. For example, the Chinese Steamship Company, created by Li Hung-chang in 1872, to fight the Western grip, met a savage response from the British and American companies, which essentially drastically reduced their prices in a predatory manner to ruin the Chinese company.[17]

However, perhaps a more serious, and more pervasive, result of the Western predation, was the development of an enormous body of reactionary opinion which was hostile to Westerners, in particular, and to innovations, in general.[18] Thus, the present Chinese leadership faces at least a two-fold problem in stimulating innovation. The most basic problem relates to a residual mistrust of innovation as a result of years of foreign imperialistic colonization. The second problem, which assumes a general endorsement of innovation, resides in finding ways

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[16] See note 7, at 565.

[17] *Id.*, at 581.

[18] *Id.*, at 587.

to encourage and reward innovation which are congruent with Marxist thought.

In an effort to educate the Chinese people of the legitimacy and importance of innovation in the modernization program, the National People's Congress (NPC) under the guidance of the Standing Committee and the Chinese Communist Party included Article 20 in the PRC Constitution of 1982. Article 20 provides that:

> The state promotes the development of the natural and social sciences, disseminates scientific and technical knowledge, and commends and rewards achievements in scientific research as well as technological discoveries and inventions.

However, despite the imprimatur placed upon innovation by the Chinese leadership, it has been noted that many of the factors which made possible the development of the free enterprise system in Western societies are missing from both Chinese custom and manner of thinking.[19] For example, one author has expressed the opinion that the spirit of enterprise and competition, the taste for saving, and the notions of commercial advantage and profitability have not only been absent in China, but they were and continue to be in contradiction with the whole humanist tradition of China.[20] The author observes that:

> In China social success could not be reduced to vulgar enrichment, but implied above all the acquisition of honors and offices which gave access to political power and prestige. Chinese ethics preached devotion to the state, personal culture, self-enforcement and modesty. Even in business, real capital was not economic in nature, but social; it consisted of moral credit, dignity and authority. It was on the basis of this credit bestowed by an acquired reputation by blood relationships and ties contracted that deals were negotiated.[21]

Of course, beyond the customary attitudes and opinions engendered by previous experience, there is the particularly thorny problem of encouraging innovation in a manner that is congruent with Marxist thought. In most Western countries, intellectual property laws provide a variety of protection for the intellectual property of authors, creators and individual or corporate inventors. At first glance, it would seem that such protection is antithetical to the socialist development of any communist country. For while communist governments wish to encourage innovation, under Marxist philosophy, individual creations are viewed as a social production.

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[19] *Id.*, at 573.

[20] *Id.*, at 573.

[21] *Id.*, at 573.

The new Patent Law of 1984 was not China's first experience with patent law. The first Chinese patent law was enacted in December 1911 and was entitled "Provisional Rules on the Encouragement of Arts and Crafts."[22] The law granted a five-year term of protection and was revised several times. However, in January 1949, a new patent law was passed which is still in effect in Taiwan.[23]

Prior to the new Patent Law in 1984, the PRC had essentially three patent laws. The two earliest pieces of PRC patent legislation were (1) the Act of 1950 entitled "The Provisional Regulations on the Protection of the Invention Right and the Patent Right", and (2) the Act of 1954 entitled "The Provisional Regulations on Awards for Inventions, Technical Improvements and Rationalization Proposals Relating to Production." These two laws established a dual system, including both patents and certificates of authorship. Inventions involving secrets related to national defense, military technology and those affecting the welfare of the Chinese people, such as pharmaceuticals and new agricultural species were only eligible for certificates of authorship.[24]

However, the third piece of patent legislation was enacted in a very different ideological context. The "Regulation on Awards for Inventions and the Regulation on Awards for Technical Improvements," promulgated in November 1963, adopted an anti-elitist approach and reflected the new view of the Chinese leadership that patents were ideologically unacceptable.[25] Under this legislation, patent protection was unavailable and inventions were deemed to be state property.[26] Moreover, under the 1963 Regulations, the annual payments of awards to inventors having a certificate of authorship were discontinued and single payment bonuses of much smaller amounts were offered instead.[27] Although the Chinese leadership still intended to stimulate innovation, it was found more desirable to "enrich" the material award (bonus) with honorary distinctions. Both were considered necessary and appropriate.[28] Thus, as of 1963, the Chinese leadership attempted to strike a balance between material and ideological incen-

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[22] See note 1, at 18.

[23] *Id.*, at 18.

[24] *Id.*, at 19.

[25] *Id.*, at 19.

[26] *Id.*, at 19.

[27] *Id.*, at 19.

[28] *Id.*, at 20.

tives. Curiously, this seemed to reflect not only Marxist philosophy, but to some extent the older humanist tradition.

Despite the comparatively limited incentives for inventors under the 1963 Regulations, even these were eliminated during the Cultural Revolution.[29] The discontinuance of these bonuses, despite their theoretical requirement by Regulation, has been described as evidencing both a discrediting of scientists and intellectuals and a lack of respect for the role of law during this period.[30]

Prior to the issuance of the Patent Law of 1984, several advances in intellectual property rights occurred. First, in 1978, although emphasis was still placed on ideological rewards and "spiritual encouragement", amendments to the 1963 Regulations were passed which, for the first time, permitted individual members of collectives that developed inventions to personally receive a portion of the monetary award, based upon their individual contribution to the effort.[31] In 1979 Regulations were enacted which provided for the issuance of certificates of merit with monetary awards for the elucidation of scientific phenomena or laws of nature.[32]

Finally, in 1982, Regulations were enacted which replaced the original 1963 Regulations which had been reissued unchanged in 1978.[33] Significantly, cash awards were provided to individuals contributing to any technical advance. Inasmuch as these Regulations cover some of the subject matter that is ineligible for patent protection, such as new agricultural varieties, it is thought likely that these Regulations will stay in force and compliment the new Patent Law.

The new Patent Law is the latest in a number of steps taken by the Chinese since the founding of the State Patent Bureau in 1980, which demonstrate concern for the protection of patent and intellectual property rights. Prior to enacting the new law, the PRC joined the United Nations World Intellectual Property Organization (WIPO) and has sought increased cooperation with the U.S. Patent Office and the European Patent Office. Of course, since the new law was enacted, extensive preparations have begun. Among some of the more noteworthy accomplishments to date are the establishment of a national Patent Bureau, based in Beijing, and having a branch in Shanghai; the establishment of several provincial offices; and the collec-

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[29] *Id.*, at 20.

[30] *Id.*, at 20.

[31] *Id.*, at 21.

[32] *Id.*, at 22.

[33] *Id.*, at 22.

tion of approximately twenty million foreign patent documents. Furthermore, the training of about 11,500 patent office staff members has commenced.[34]

Additionally, the China Council for the Promotion of International Trade (CCPIT) has been designated by the State Council as the agency which will assist (1) foreign individuals and companies in applying for patents in China, and (2) Chinese individuals and organizations in applying for patents abroad.[35] This agency will write and translate patent applications, provide advice on applying for patents as well as provide legal services relating to patent infringement suits and technology transfer.[36] In order to meet its ambitious goals, the CCPIT has recruited experts in foreign languages, various technologies and law. The agency also investigated foreign patent laws and regulations and sent representatives abroad to study the same firsthand. Additionally, the CCPIT entertained foreign patent experts who gave seminars in order to further understand foreign patent systems.[37]

Clearly, the Chinese leadership recognizes the importance of technical exchanges with foreign countires in the modernization of the PRC. In fact, one of the major motives behind the patent law is the desire to facilitate international exchanges and to acquire foreign technology.[38]

The delicate ideological balance struck in promulgating the new Patent Law is seen in a comment by Huang Kunyi, the director general of the China Patent Office, made during an interview with a staff reporter for the Beijing China Daily. In response to the question of why China needs a patent law at present, the director first correctly noted that the Chinese have always been creative people and that the [party] wished to provide encouragement for "the enthusiasm, creativity and inventiveness of the whole people."[39] Interestingly, Mr. Kunyi also noted, perhaps as commentary, that this inventiveness had been "suppressed during the past few centuries, especially during the 'cultural revolution'."[40]

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[34] *Id.*, at 33.

[35] "China Launches Patent Agency: 27:32 Beijing Review 7 (1984).

[36] *Id.*, at 7.

[37] *Id.*, at 7.

[38] See note 1, at 23.

[39] "Patent Agency Opens in Beijing", *Foreign Broadcast Information Service,* Daily Report: China, July 13, 1984, no. 136, p.K9.

[40] *Id.*, at K12.

Secondly, it was also noted that in order to facilitate economic and technical cooperation with foreign countries, legal protection for inventions must be available in the PRC.[41]

However, Mr. Kunyi also stressed that despite the fact that the above recited motivations were similar to the motivations of other countries in enacting patent laws, an essential difference exists. Namely, that:

> The Chinese Patent law is worked out in line with the socialist principles of public ownership of means of production and a planned economy, laying special emphasis an effectively handling the mutual interests of the State, collectives and individuals.[42]

In elaborating upon how such a balance would be attained, the director explained, for example, that creations or inventions made by an individual in the execution of the tasks of the organization or collective to which he belongs essentially belong to that collective or organization, but that the individual would be eligible to receive a proportional award.[43] Also, it was noted that under the new law, various departments of the State Council and governments of the various provinces, autonomous regions and municipalities have the power to allow designated entities to exploit the inventions or creations created by an entity within its system or directly under its administration.[44] This would, ostensibly, serve to prevent monopolies and spread the application of science and technology.

IV. THE NEW PATENT LAW

Throughout the remaining course of this paper, reference will be made to various Articles of the new Patent Law. Although it may be somewhat inconvenient for the reader, the author has elected not to reproduce the new law in the entirety for the sake of brevity.

The new Patent Law entails 7 chapters, having a total of 60 Articles. Chapter 1 relates to general provisions; Chapters 2-3 to requirements for a patent application; Chapter 4 to the examination and approval of the application; Chapter 5 to the duration, cessation and invalidation of patent rights; Chapter 6 to compulsory licensing; and Chapter 7 to the enforcement of patent rights.

The scope of the available coverage is set forth in the first two Articles, which recite that the law has been promulgated to protect patent

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[41] *Id.*, at K12.

[42] *Id.*, at K12.

[43] *Id.*, at K12.

[44] *Id.*, at K12.

rights to "inventions-creations" which are defined in Article 2 as "inventions, utility models and designs." The "inventions" and "designs" of this law seem to correspond with those of U.S. patent law, while the "utility model" seems to relate to minor technical or production improvements which might, nevertheless, be of use to the PRC in the drive for modernization.

Article 5 cryptically denies protection for any invention-creation "that is contrary to the laws of the State or social morality or that is detrimental to public interest." Such a provision is not unheard of and has been suggested to refer to such things as drug paraphernalia and gambling machines.[45] However, it has been noted that terms such as "social morality" or "detrimental to public interest" are not defined in any Chinese legislation currently in force.[46]

Article 25 enumerates several classes of items which are not eligible for patent protection. They are (1) scientific discoveries, (2) rules and methods of mental activity, (3) methods of diagnosis and treatment of diseases, (4) foods, beverages and flavorings, (5) pharmaceuticals and substances produced by chemical processes, (6) animal and plant species and (7) substances produced by means of nuclear transformation. Nevertheless, production methods for the materials described in(4)-(6) are patentable.

Rather straightforward reasons have been articulated for the existence of the above classes of ineligible subject matter, and, in fact, are similar to reasons advanced in other countries for similar denials of protection. Scientific discoveries and mental activity are more in the realm of ideas than production, and are, moreover, within the scope of the 1979 Regulations which provide awards for scientific achievement.[47] Methods of diagnosing and treating illness, as well as food substances and pharmaceutical products are ineligible for protection as they are considered to be too closely related to the health and welfare of the people. Apparently, it is not believed to be in the public interest to allow protection for these classes of items.

Such a policy is not unusual and, in fact, is similar to policies adopted by countries such as Argentina, Bolivia, Brazil, Chile and Mexico.[48] Moreover, while the PRC has decided to provide patent pro-

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[45] See note 1, at 28.

[46] "PRC Patent Law Offers Basic Protection, but Questions Remain", 6:6 East Asian Executive Reports 9-13 (1984).

[47] See note 1, at 28.

[48] See *World Patent Law and Practice,* Vol. 2A, Appendix 2, 2-1 to 2-23 (Matthew Bender 1985).

tection for methods of producing pharmaceutical compounds, it is noted, by contrast, that countries such as Brazil or Chile deny such protection altogether, while others like Colombia provide such process protection only if the applicant can show that he or she is in a position to exploit the process in Colombia and can supply the market under reasonable conditions of quantity, quality, and price.[49]

In the case of chemical products, the Chinese leadership has opined that allowing patents for chemical products which could be made by more than one process would restrict research.[50] Furthermore, it has been noted that the chemical industry in the PRC is not very advanced and that such protection would only be appropriate after the industry has become more advanced.[51] This observation seems to reflect the conventional approach of patent systems world-wide, for there appears to be a very definite trend for chemical and pharmaceutical inventions to have increased protection in advanced industrial countries and to have decreased protection in developing countries.[52]

Defense considerations seem to be the primary reason for removing nuclear substances and the production methods therefor from eligibility. At present, plant and animal species are unpatentable, although the new Patent Bureau has suggested that this may change in the future.[53]

Other important articles in the General Provisions are Article 9 which establishes the principle that where competing applications are filed, the first in time will be awarded the patent. Article 10 permits the transfer of patent rights to others subject to approval by competent authorities under the State Council.

Article 14 intimates that there is a possibility that local governments may become involved in the granting or designation of rights to exploit a patent. Essentially this article provides that the "competent departments concerned of the State Council and the people's governments of provinces, autonomous regions or municipalities directly under the Central Government" have the power to allow "designated entities" to exploit "important" invention-creations and patents which are deemed to be "of great significance" to the State's interests or to "the public interest and is in need of spreading and

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[49] *Id.*, at 2-22, see f.n. 13.

[50] See note 1, at 28.

[51] *Id.*, at 28.

[52] See note 48, at 2-1.

[53] See note 1, at 29.

application." Although Article 14 provides for the payment of an exploitation fee to the patentee, it is unclear whether such designated entities would have the right to exploit the patent without territorial restriction or only in a limited territorial area.

Article 18 also presents potential problems for the foreign investor. Article 18 requires that patent applications of foreign individuals and entities "not usually resident" or "having no business office in China" be handled in accordance with any agreement concluded between China and the applicant's country or in accordance with any mutually signed treaties. It has been noted that the terms "residence" and "business office in China" are undefined, imparting a vagueness to the Article.[54]

Chapter 3 of the Patent Law pertains to the mechanics of filing the patent application and the contents thereof. Article 26 requires that the application contain a request, a description and a claim. However, in assessing who may apply for a patent, Article 6 provides that the right to apply for a patent for items created by a person in the course of the individual's employment or "within the scope of duties", belongs to the work unit. Thus, only things developed on one's own time and with one's own materials can be patented by individuals. However, it has been noted that at present, there is no legal definition available of "within the scope of [one's] duties."[55]

In any event, the request must state the title of the invention or utility model, the inventor's name and the applicant's name and address. The inventor and applicant could be different in one of two situations. First, under Article 10 the patent rights may be transferred to someone other than the inventor. Secondly, as noted above, in many cases, the right to apply for a patent will inure to the work unit and not the inventor.

The description must describe the invention or utility model "in a manner sufficiently clear and complete so as to enable a person skilled in the relevant field of technology to carry it out." Article 26. An abstract is also required which should briefly state the "technical points" of the invention utility model.

Chapter 2 sets forth the requirements for the grants of patent rights. Under Article 22, the three basic criteria for patentability are novelty, inventiveness and practical applicability.

In general, as a standard of patentability, novelty has essentially three variations. First, there are the countries which bar patentabil-

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[54] See note 46, at 11.

[55] *Id.*, at 11.

ity if the invention has been described in print or made known in any way, including use, in any country prior to the date of application. Secondly, there are the countries which bar patentability if the invention has been described in print in any country, or publicly used in that country only, prior to the date of application. This is the so-called limited world novelty. Finally, there are the countries which bar patentability if the invention has been described in print or publicly used only in that country, prior to the date of application.[56] The PRC opted for the second variety, limited world novelty.

Article 24 provides a "novelty-saving" provision and recites that novelty will not be lost for invention-creations if an application is filed within six months of any of the following events: (1) a first exhibition of the invention-creation at an international exhibition sponsored or recognized by the Chinese government, (2) a first public disclosure at a prescribed academic or technological meeting, or (3) a first disclosure by anyone without the applicant's consent.[57]

The second basic requirement for patentability is inventiveness, which is defined in Article 22 for both inventions and utility models. Inventions must have "prominent substantive features" and represent "notable progress" relative to existing technology. Utility models must have merely "substantive features" and only represent "progress". Thus, the standard of inventiveness required for utility models appears to be less than for inventions. However, regardless of the actual name given to the standard of inventiveness applied, there appears to be some recognition that items patented should not be obvious to those working in the field.[58]

Thirdly, the invention or utility model must have practical applicability. Interestingly, Article 22 defines this concept to mean that "the invention or utility model can be made or used and can produce effective results." The first portion of the definition seems to mandate the bare utility requirement of operativeness, while the latter portion adds the cryptic mandate of "effective results". Of course, it is unclear what criteria will be used to measure effectiveness and what quantum of differential effectiveness would constitute a patentable difference.

The chapters of the law relating to examination and approval seem to contain few, if any, surprises. Article 34 requires the Patent Office

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[56] See note 48, vol. 2, Chapter 4 on "Novelty".

[57] Many countries have similar "novelty-saving" provisions. See note 56, "Savings as to Anticipation", at 82.1-82.5.

[58] See note 1, at 27.

to publish the application within 18 months after the filing date. Article 35 requires that the patent be examined "at any time within three years of the date of filing," when requested by the applicant. However, if the Patent Office is left to proceed without such a request by the applicant, the Office will commence examination "when it deems it necessary."

After examination on the merits, the application will either issue as a patent under Article 39, or, under Article 37, the Patent Office will require amendments to the application in order that it will conform to law and be acceptable. The application will be deemed abandoned if the requested amendments are not made within the specified time limit.

Oppositions to the patent application may be filed by any person within three months of the announcement of the application. A copy of any opposition must be sent to the applicant, who then has three months, under Article 41, to respond thereto.

Rejected patent applications may be appealed to the Patent Reexamination Board within three months from the date of notification of rejection. While the decision of the Board is final with respect to utility models and designs, a disgruntled applicant may, within three months from the date of receipt of notification of rejection, institute appeal proceedings in the people's court for rejections of inventions which are sustained by the Board. Article 43. It has been pointed out that these appeals as well as other patent litigation will be before the intermediate level courts. These courts are generally staffed by jurists who have more legal education than jurists serving in the lower level or basic courts.[59]

Article 45 provides for terms of protection of 15 years for patents for inventions and five years for utility models and designs. However, the shorter terms may be renewed for an additional three years before the original term expires. Annual, but unspecified, fees must be paid under Article 46, with the patent right being forfeited where such fees are not paid. Article 47.

Articles 48 and 49 provide a procedure whereby an existing patent may be invalidated by the Patent Reexamination Board. Under Article 48 "any entity or individual" may contest the validity of a patent before the Board. Under Article 49, it is noted that while Board decisions pertaining to utility models and designs are final, an aggrieved patentee may appeal a finding of invalidity with respect to an invention patent to the people's court provided that such an appeal is filed

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[59] See note 1, at 30.

within three months from receipt of the notification of the Board's decision.

Of the provisions of the new law that may pose the most serious questions for a foreign investor, the most troublesome provisions may pertain to compulsory licensing and infringement. Under the new law, patentees have a major obligation to work the patent, that is to "make the patented product, or to use the patented process, in China, or to authorize other persons" to do so. Article 51. If a patented product or process is not worked within three years of the grant of the patent right, the Patent Office may require the patentee to license the patent to a qualified entity. Clearly, the overall thrust of the compulsory license articles is to prevent patentees who are not in a position to exploit their patents within China from retarding technological development. Conversely, every effort is made to encourage such development. For example, under Article 53, later patentees which have patents to advanced versions of earlier patented technologies can request a compulsory license to use the earlier patented technology where the exploitation of the later technology depends upon the exploitation of the earlier technology. Similarly, in such a situation, the earlier patentee can request a compulsory license of the later patented technology.

To foreign investors versed in United States patent law, the above articles may seem troublesome. However, it should be noted that in many countries failure to work a patented invention may be a ground for outright revocation or forfeiture of the patent.[60] Moreover, under the new law, an applicant for a compulsory license must prove that it has not been able to conclude a licensing agreement with the patentee "on reasonable terms". Article 54. It is also significant that compulsory licensing does not cover exclusive rights to the use of the patent, nor does it include the right to assign the use of the patent to third parties. Article 56.

Finally, it is noted that under Article 58, patentees dissatisfied with a decision to grant a compulsory license or with the amount of exploitation fee will be able to seek redress in the people's courts.

Article 60 broadly provides that any exploitation of the patent without the authorization of the patentee constitutes infringement. The patentee or any interested party may request the administrative authority for patent affairs to adjudicate the matter or may institute proceedings before the people's court. However, Article 62 then care-

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[60] *Foreign Patent Applications*, by A. Lignac, at 95, (Practicing Law Institute 1969).

fully excises several principal areas of activity from the ambit of infringing acts, two of which will be noted here.

First, it is not infringement for any person to use or sell a patented product after it has been sold by the patentee or under his authorization. Secondly, and most importantly, it is not infringement where any person uses or sells a patented product "not knowing it was made and sold without the authorization of the patentee." Thus, in the PRC, the infringement must be a knowing infringement in order to be actionable. Hence, this would appear to place a burden upon patentees to provide notice to the public of the patented status of patented items. Such a requirement presents obvious problems for patented processes. By contrast, under United States law, knowledge is, of course, not required for direct infringement, whereas it is for contributory infringement.

Finally, an additional ground for legal proceedings by a patentee is provided by Article 63 which prohibits "passing off" the patent of another. Under "serious circumstances", criminal liability may be imposed. Admittedly, the language of this article is unconventional inasmuch as the concept of "passing off" is more typically applied to the goods of another. However, it has been suggested that the prohibition against "passing off" in Article 63 also may extend to trademark infringement.[61] Article 127 of the Chinese Criminal Law provides that:

> The persons directly responsible for violating the laws and regulations on trademark control, where an industrial or commercial enterprise falsely passes off trademarks already registered by another enterprise, shall be sentenced to not more than three years of fixed — term imprisonment, criminal detention or fine.

Although it is not yet clear how rigorously the above provision will be enforced, it appears that some U.S. companies that have set up export-processing arrangements in China, such as Nike, Inc., have already encountered some problems in attempting to stop unauthorized parties from "passing off" their goods.[62]

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[61] See note 46, at 12.

[62] See The Wall Street Journal, December 11, 1985 where the problems encountered by Nike, Inc. are described. In essence, Nike discovered a store selling unauthorized Nike shoes made by a factory with which Nike broke relations in 1983. The factory had continued to manufacture the shoes using left-over materials. Nike's complaints to authorities have thus far been to no avail. However, from the article it is unclear whether Nike actually registered the trademark in China.

V. SUMMARY

In recent years, the PRC has evidenced an increased recognition of the importance of law as a constructive force for both stabilizing and modernizing society. The Chinese leadership appears particularly interested in acquiring advanced foreign technology and foreign investment to vitalize their ambitious program of modernization. They have also recognized the importance of providing and protecting patent rights as an essential component of their guest for modernization.

This development is encouraging for two reasons. First, it indicates, at least to some degree, an open-mindedness and willingness to experiment on the part of the Chinese leadership. Certainly, it is a bold initiative to acknowledge and provide for the protectability of private patent rights in a Marxist system.

Secondly, it is hoped that the new patent law, among other new laws in the present "legal revolution", will pave the way for a second Chinese "renaissance." Such a development would, most certainly, not be a break from the traditions of the past, but might herald the reestablishment of Chinese pre-eminence in science and technology.

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THE ADOPTION OF THE UNIFORM TRADE SECRETS ACT: HOW UNIFORM IS UNIFORM?

by Steve Borgman*

Businesses desire legal protection for advanced technology and competitively advantageous information.[1] Developing such technology and information[2] can be expensive,[3] but legal protection for such information helps ensure an adequate return on investments,[4] thereby encouraging innovation.[5] Such protection may consist of patent,[6] copyright,[7] or trade secret protection.[8]

Many businesses prefer trade secret protection to that afforded by the patent or copyright laws.[9] There are no novelty,[10] originality,[11] or nonob-

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[1] *See* Hutter, *Trade Secret Misappropriation: A Lawyer's Practical Approach to the Case Law*, 1 W. New Eng. L. Rev. 1, 2-3 (1978) [hereinafter cited as Hutter]; M. Jager, *Trade Secrets Law* 1-8 to -10 (1985) [hereinafter cited as M. Jager].

[2] The term "information" obviously is broad enough to include information regarding new technology. The distinction helps when discussing trade secret protection because both the information and its embodiment are protectible trade secret subject matter. *See, e.g.*, Hutter, *supra* note 1, at 10-11.

[3] *E.g.*, Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974); *see* M. Jager, *supra* note 1, at 1-2 (stating that annual expenditures on the development of computer software alone are expected to exceed $100 billion by the end of the 1980's).

[4] *E.g.*, Kewanee Oil, 416 U.S. at 480; M. Jager, *supra* note 1, at 1-8 to -9; Hutter, *supra* note 1, at 2-3.

[5] *E.g.*, Kewanee Oil, 416 U.S. at 480 & 485; M. Jager, *supra* note 1, at 1-8 to -10.

[6] *See* 35 U.S.C. §§ 101-376 (1982) (patent laws).

[7] *See* 17 U.S.C. §§ 101-810 (1982) (copyright laws); *see also* 17 U.S.C.A. §§ 901-914 (West Supp. 1985) (Semiconductor Chip Protection Act of 1984).

[8] *See generally* Uniform Trade Secrets Act §§ 1-13 (1979) (the "Act" or the "Uniform Act"); Restatement of Torts § 737 (1939); Klitzke, *The Uniform Trade Secrets Act*, 64 Marq. L. Rev. 277, 277-82 (1980). Citations to the Act are to the original provisions of the Act unless otherwise noted.

[9] *See infra* text accompanying notes 10-21.

[10] *See, e.g.*, Kewanee Oil, 416 U.S. at 476.

[11] *See* 17 U.S.C. § 102 (1982) (stating that copyright protection subsists in "original works of authorship").

viousness[12] requirements for trade secret status; the level of "creativity" required for trade secret protection is lower.[13] In the past, courts often declared patents invalid in patent infringement suits[14] and, even when the patent was upheld, its duration was limited to a term of seventeen years.[15] Trade secret protection, however, is seen as a better bet in litigation[16] and there is no definite time limit on protection; if the secret remains secret, protection continues.[17]

There are at least two other advantages of trade secret protection. First, no public disclosure is required as a predicate to protection[18] and, therefore, the owner enjoys both legal protection for the information and retains the competitive advantage due to the continued secrecy of the information.[19] Second, because of the uncertainty as to how the existing patent and copyright laws will accommodate new technologies, trade secret protection seems more certain.[20] Because of these advantages, trade secret law has played an increasingly important role in encouraging commercial research and development.[21]

This article examines a fairly recent development in trade secret law: the Uniform Trade Secrets Act. The article first examines the Act's provisions and points out several areas which have been subject to criticism.[22] The article then considers these problem areas in detail and examines the modifications made by the adopting states and the recent amend-

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[12] *See, e.g.,* Kewanee Oil, 416 U.S. at 476-78.

[13] *See* M. Jager, supra note 1, at 5-41 to -48; 1 R. Milgrim, Milgrim on Trade Secrets § 2.08 (1985) [hereinafter cited as R. Milgrim]

[14] *See, e.g.,* Unif. Trade Secrets Act, 14 U.L.A. 537 (Prefatory Note) (1980).

[15] *See, e.g.,* Kewanee Oil, 416 U.S. at 477-78.

[16] *See, e.g.,* Hutter, *supra* note 1, at 5.

[17] *See, e.g.,* Kewanee Oil, 416 U.S. at 492 (Marshall, J., concurring).

[18] Public disclosure of the invention constitutes the *quid pro quo* exacted by the federal government in return for the 17-year patent monopoly on the invention. *See, e.g.,* Kewanee Oil, 416 U.S. 480-81.

[19] *See* Hutter, *supra* note 1, at 4-5.

[20] An excellent example of this problem of accomodation is the treatment of computer software and hardware by both the patent and copyright laws. *See* M. Jager, *supra* note 1, at 1-2 to -4. It was not until 1984 that computer chips were assured of protection; their status under copyright and patent laws was uncertain. *See, e.g.,* D. Davidson, *Protecting Computer Software: A Comprehensive Analysis,* 4 Jurimetrics 337, 355-57 & 360-76 (1983). Congress finally responded with the Semiconductor Chip Protection Act of 1984. *See* 17 U.S.C.A. §§ 901-914 (West Supp. 1985). In the meantime, trade secret law offered legal protection for the chips. *See* M. Jager, *supra* note 1, at 1-2 to -3.

[21] *See* M. Jager, *supra* note 1, at 1-1; Hutter, *supra* note 1, at 4-6.

[22] *See infra* text accompanying notes 26-112.

ments adopted by the Commissioners on Uniform State Laws.[23] The article also considers the extent to which these changes have remedied the Act's defects and have affected the uniformity of the Act.[24] Finally, the article concludes that, in general, the changes have not necessarily thwarted the goal of uniformity because the various provisions are amenable to uniform interpretation.[25]

I. The Uniform Trade Secrets Act

The Uniform Trade Secrets Act was approved by the National Conference of Commissioners on Uniform State Laws in August, 1979.[26] The Act is law in 12 states:[27] Arkansas,[28] California,[29] Connecticut,[30] Delaware,[31] Idaho,[32] Indiana,[33] Kansas,[34] Louisiana,[35] Minnesota,[36] Montana,[37] North Dakota,[38] and Washington.[39, 40] The Act was recently amended by

[23] *See infra* text accompanying notes 113-386.

[24] *See infra* text accompanying notes 113-386.

[25] *See infra* text accompanying notes 387-93.

[26] Unif. Trade Secrets Act, 14 U.L.A. 540 (Prefatory Note) (1980).

[27] *Cf.* M. Jager, *supra* note 1, at A2-1 to A2-29 & A3-1 to A3-6 (omitting Arkansas and Idaho from the list of states adopting the Uniform Act, apparently because of the failure of those states to include a section stating that its Act may be cited as the Uniform Trade Secrets Act).

[28] Ark. Stat. Ann. §§ 70-1001 to -1007 (Supp. 1985).

[29] Cal. Civ. Code §§ 3426-3426.10 (West Supp. 1985).

[30] Conn. Gen. Stat. Ann. §§ 35-50 to -58 (West Supp. 1985).

[31] Del. Code Ann. tit. 6, §§ 2001-2009 (Supp. 1984).

[32] Idaho Code §§ 48-801 to -807 (Supp. 1985).

[33] Ind. Code Ann. §§ 24-2-3-1 to 24-2-3-8 (West Supp. 1985).

[34] Kansas Stat. Ann. §§ 60-3320 to -3330 (1983).

[35] La. Rev. Stat. Ann. §§ 51: 1431-1439 (West Supp. 1986).

[36] Minn. Stat. Ann. §§ 325C.01 to 325C.08 (West 1981).

[37] 1985 Mont. Laws ch. 104.

[38] N.D. Cent. Code §§ 47-25.1-01 to 47-25.1-08 (West Supp. 1985).

[39] Wash. Rev. Code. Ann. §§ 19.108.010 — 19.108.940 (West Supp. 1985).

[40] North Carolina also has adopted a trade secrets statute recently, but this statute is significantly different from the Uniform Act. *See* N.C. Gen. Stat. §§ 66-152 to -157 (Supp. 1981). *See generally* Root & Blynn, *Abandonment of Common-Law Principles: The North Carolina Trade Secrets Protection Act,* 18 Wake Forest L. Rev. 823 (1982) (examining the differences between the preexisting common law, the Uniform Act, and the North Carolina Act). Although based on the Uniform Trade Secrets Act, the North Carolina Act adopts a different view of what constitutes a "misappropriation" in its delineation of the elements of a prima facie case. *See* Root & Blynn, *supra,* at 831-35. Because of the North Carolina Act's departure from the general "bad faith" requirements present in the Uniform Act's definitions of "improper means" and "misappropriation," a substantial question exists as to whether the North Carolina Act is preempted by the federal patent laws. *See id.* at 844-54.

the National Conference of Commissioners in August, 1985.[41]

Concerns about the uneven development of trade secret law,[42] as well as general problems of uncertainty about the parameters of trade secret protection and appropriate remedies,[43] led to the development of the Uniform Act.[44] The Uniform Act codifies much of the common law of trade secrets,[45] thus preserving the essential distinctions between trade secret laws and patent laws.[46] The "essential"[47] distinctions include the promotion of commercial ethics by restraining immoral conduct and the encouragement of innovation by protecting valuable information.[48] As long as there is no clash between the policies of federal patent law and state policies of trade secret protection, the state laws are not preempted.[49]

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[41] Copies of the Uniform Trade Secrets Act with 1985 Amendments are available from the National Conference of Commissioners on Uniform State Laws. Comments from the bench and bar led to the 1985 amendments. *See* National Conference of Commissioners on Uniform State Laws, Uniform Trade Secrets Act with 1985 Amendments (1985); *see also infra* note 106 (listing the various commentary criticizing the Act as originally drafted).

[42] Development of the common law is uneven because, although there usually are a number of reported cases in states which are commercial centers, there are few, if any, cases in the less populous and more agricultural states. Unif. Trade Secrets Act, 14 U.L.A. 537 (Prefatory Note) (1980).

[43] *See, e.g., id.;* Johnson, *Remedies in Trade Secret Litigation,* 72 Nw. U. L. Rev. 1004, 1009 (1978).

[44] *See* Unif. Trade Secrets Act, 14 U.L.A. 537-38 (Prefatory Note) (1980).

[45] *Id.* at 538.

[46] *Id.*

[47] "Essential" means the differences needed to avoid the preemption of state laws.

[48] The requirement of immoral conduct thus distinguishes trade secret law from patent law. Also, more than one person may be entitled to trade secret protection at the same time and the copying of an unpatented product is not actionable under the Uniform Act. *See* Kewanee Oil, 416 U.S. at 475-76; Unif. Trade Secrets Act, 14 U.L.A. 538 (Prefatory Note) (1980); *see also* 2 R. Milgrim, *supra* note 13, at § 7.08[2][e] (discussing the impact of Kewanee).

[49] Kewanee Oil, 416 U.S. at 479.

Some question remains regarding the preemption of trade secret law by § 301 of the 1976 Copyright Act. Section 301 preempts state laws dealing with legal or equitable rights that are "equivalent to" the exclusive rights of reproduction, performance, distribution, and display granted to the copyright owner by § 106. 17 U.S.C. § 301 (1982).

The legislative history of § 301, while ambiguous, indicates that Congress intended to leave trade secret law unaffected. Early drafts contained a list of rights which were not "equivalent to" the § 106 rights granted to the copyright owner; the list included breaches of contract, breaches of trust, invasions of privacy, defamation, and deceptive trade practices. *See* H. Rep. No. 1476, 94th Cong., 2d Sess. 132, *reprinted in* 1976 U.S. Code Cong. & Admin. News 5659, 5748.

Important features of the Act include its definitions of "trade secret"[50] and "misappropriation,"[51] as well as the delineation of available remedies for trade secret misappropriation[52] and the displacement of the various property, quasi-contract, tort, and restitutionary theories of liability otherwise invoked at common law.[53]

The courts have developed the "extra element" test in determining whether state laws are preempted by § 301; if the state cause of action contains an element that is qualitatively different than the copyright-infringing acts of reproduction, distribution, performance, and display, then the state claim is not preempted. *See, e.g.*, Harper & Row Publishers, Inc. v. Nation Enterprises, 723 F.2d 195, 200 (2d Cir. 1983), *rev'd on other grounds*, 105 S.Ct. 2218 (1985); Mayer v. Josiah Wedgwood & Sons, Ltd., 601 F. Supp. 1523 (S.D.N.Y. 1985).

Because protection of trade secrets depends upon the secrecy of the subject matter, it seems that trade secret laws contain the extra element needed to escape preemption. *See* BPI Systems, Inc. v. Leith, 532 F. Supp. 208, 211 (W.D. Tex. 1981); Warrington Assoc. v. Real-Time Engineering Systems, Inc., 522 F. Supp. 367, 368-69 (N.D. Ill. 1981); M. Bryce & Assoc. v. Gladstone, 319 N.W. 2d 907 (Wis. Ct. App. 1982); 1 M. Nimmer, Nimmer on Copyright, § 1.01[B][1], 1-13 to -14.1 & n. 48.1 (1985); *cf.* Videotronics, Inc. v. Bend Electronics, 564 F. Supp. 1471, 1475-78 (D. Nev. 1983) (preemption of trade secret protection for computer software which had been distributed publicly and thus contained no elements of secrecy).

Similarly, if the misappropriation claim is based on the breach of a contractual duty or a breach of trust, there should be no preemption, because the existence of a promise or a duty of trust are extra elements not required by the copyright law. *See* Oddo v. Ries, 743 F.2d 630, 635 (9th Cir. 1984); Smith v. Weinstein, 578 F. Supp. 1297, 1307-08 (S.D.N.Y.), *aff'd*, 738 F.2d 419 (2d Cir. 1984); Sargent v. American Greeting Cards Corp., 588 F. Supp. 912, 923-24 (N.D. Ohio 1984); Freedman v. Select Information Systems, Inc., 221 U.S.P.Q. 848, 851 (N.D. Cal. 1983); *see also* H. Rep. No. 1476, 94th Cong., 2d Sess. 132, *reprinted in* 1976 U.S. Code Cong. & Admin. News 5659, 5748 (listing breaches of trust or confidentiality as qualitatively different from copyright infringement and stating that nothing in [the prior draft of § 301] derogates from the rights of parties to contract and to sue for breach of contract); 1 M. Nimmer, *supra*, at § 1.01[B][1]. 1-13 to -14.2; M. Jager, *supra* note 1, at § 10.02[1], 10-9 to -16 (concluding that there is no preemption if the cause of action contains elements of secrecy or breaches of trust or contractual duties); 2 R. Milgrim, *supra*, note 13, at § 7.08[2][f] (stating that copyright law is wholly different from trade secret law because the latter merely regulates the rights between individuals and does not confer exclusive rights). *Compare* Oddo, Weinstein, Sargent, *and* Freedman *with* Avco Corp. v. Precision Air Parts, Inc., 210 U.S.P.Q. 894 (M.D. Ala. 1980), *aff'd on other grounds*, 676 F.2d 494 (11th Cir.), *cert. denied*, 459 U.S. 1037 (1982) (preemption of trade secret law because the plaintiff failed to assert any invasion of privacy, trespass, or breach of trust or confidentiality).

[50] *See infra* text accompanying notes 57-60.

[51] *See infra* text accompanying notes 62-73.

[52] *See infra* text accompanying notes 80-101.

[53] *See infra* text accompanying notes 102-105.

A. Definitions

The Uniform Act defines several key terms: "improper means,"[54] "misappropriation,"[55] and "trade secret."[56] This section of the article considers the meaning given to these terms.

1. Trade Secret

The Act defines a "trade secret" as information that derives actual or potential economic value from not being generally known to, or readily ascertainable by proper means by, competitors and that is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.[57] The Act makes it clear that a trade secret is information, a fact only implicitly recognized by the Restatement.[58] The definition appears broad enough to encompass such information as negative information; i.e., data that indicates what ideas, approaches, or designs are not desirable or feasible.[59] The Act also expands protection to cover "single event" information, such as a current status report.[60] The status of information as a trade secret alone does not trigger the remedies provi-

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[54] Uniform Trade Secrets Act § 1(1) (1979).

[55] *Id.* § 1(2) (1979).

[56] *Id.* § 1(4) (1979).

[57] *Id.* § 1(4) (1979); *see* Klitzke, *supra* note 8, at 284-93; *cf.* Restatement of Torts § 757 comment b (1939) ("A trade secret may consist of any formula, pattern, device, of compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.").

The Act's definition leaves open the meanings of "generally known to" and "readily ascertainable by." Klitzke, *supra* note 8, at 290-92; *see, e.g.*, Steenhoven v. College Life Ins. Co., 458 N.E.2d 661, 666-67 (Ind. Ct. App.), *reh'g denied,* 460 N.E.2d 973 (Ind. Ct. App. 1984) (holding that information such as lists of policyholders, names and addresses of policyholders, policy numbers, renewal options, and anniversary, maturity, and expirity dates, was not subject to trade secret protection because the information was available from the policyholders themselves); *see also* Prudential Ins. Co. v. Crouch, 606 F. Supp. 464, 469 (S.D. Ind. 1985) (trade secret protection not extended to policyholder lists because the information is "readily obtainable" from the policyholders, the policies, and the insurance company and because the lists have no independent economic value due to the availability of the information from other sources).

[58] Klitzke, *supra* note 8, at 285.

[59] Unif. Trade Secrets Act, 14 U.L.A. 543 (comments to § 1) (1980); Klitzke, *supra* note 8, at 289.

[60] Unif. Trade Secrets Act, 14 U.L.A. 543 (comments to § 1) (1980); Klitzke, *supra* note 8, at 288. The Restatement did not protect single event information; instead, the Restatement required that the information be in continuous use. *See* Restatement of Torts § 757 comment b (1939).

sions of the Act, however, because an owner of a trade secret must also establish actual or threatened misappropriation of the secret.[61]

2. Misappropriation

There are two basic types of misappropriation of trade secrets under the Act: 1) the acquisition of a trade secret through "improper means";[62] and 2) and the voluntary disclosure or use of another's trade secret by someone who: a) used improper means to acquire the knowledge; or b) knew or should have known that his knowledge was derived from someone who had used improper means or owed the owner of the secret a duty to maintain secrecy or acquired it under circumstances that gave rise to a duty to maintain secrecy.[63] The Uniform Act prohibits the acquisition, use, and voluntary disclosure of a trade secret if knowledge of the secret has been acquired by improper means.[64]

A short hypothetical helps to illustrate the Act's definition of a "misappropriation." Suppose Chemico, a corporation involved in the production of chemicals for industrial and agricultural use, decides to build a new plant to take advantage of a recently developed process that makes production of certain fertilizers more efficient. Now posit a competitor, We-Are-Chemicals, who has learned of the new process and wants to acquire the details of the process so it can continue to compete on an "equal" footing with Chemico.

If We-Are-Chemicals hires the Chemico employees who developed the process and compensates them for revealing and explaining the secret process, then, assuming that the details of the process are not within the general skill and knowledge of the employees[65] and that the employees owed Chemico a duty of secrecy,[66] We-Are-Chemicals has misap-

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[61] Tubular Threading, Inc. v. Scandaliato, 443 So.2d 712 (La. Ct. App. 1983); *see* Uniform Trade Secrets Act §§ 2 & 3 (1979).

[62] Uniform Trade Secrets Act § 1(2)(i) (1979). As to what constitutes "improper means," see *infra* text accompanying notes 74-79.

[63] Uniform Trade Secrets Act § 1(2)(ii) (1979); *see* Klitzke, *supra* note 8, at 295-300.

[64] *See* Uniform Trade Secrets Act § 1(2) (1979); *see also* Root & Blynn, *Abandonment of Common-Law Principles: The North Carolina Trade Secrets Protection Act,* 18 Wake Forest L. Rev. 823, 832-35 (1982) (comparing the Uniform Act's definition of "misappropriation" with the North Carolina Act's definition of a prima facie case of misappropriation).

[65] If the information is within the general skill and knowledge of employees in the industry, the information cannot be said to constitute a trade secret; such information would be "readily ascertainable" and "generally known." *See, e.g.,* Uniform Trade Secrets Act § 1(4) (1979); Restatement (Second) of Agency § 396 (1957).

[66] This duty of secrecy is assumed in the hypothetical so that the requirement of "improper means" is satisfied. Such a duty is not the only way in which the element of "improper means" might be satisfied. *See infra* text accompanying notes 74-79

propriated the process. The misappropriation committed by We-Are-Chemicals is that of the first type; it is an acquisition by "improper means" because We-Are-Chemicals induced the employees to breach the duty they owed to Chemico.[67] The employees' breach of duty is an example of a misappropriation of the second type; the employees disclosed the secret process to We-Are-Chemicals even though they knew of their duty to Chemico.[68]

The Act also prohibits use of a trade secret which was acquired by mistake or accident unless the user of the secret has materially changed their position without knowledge of the information's trade secret status.[69] Returning to the hypothetical, suppose now that an independent consultant learns of Chemico's secret process and its construction of a new production facility and knows of the value of such information to We-Are-Chemicals. If the consultant hires an airplane, flies over the plant and takes aerial photographs, then deduces the secret from the photos of the plant, the consultant has committed the first type of misappropriation: acquisition through improper means.[70] If the consultant approaches We-Are-Chemicals and sells the secret to them, We-Are-Chemicals commits no misappropriation if it has no reason to know of the improper manner in which the consultant came to know the secret.[71] If We-Are-Chemicals relies on the representations made by the consultant and builds a new plant of its own to use the process, then it need not pay for damages caused by the misappropriation even after it knows of the misappropriation;[72] it relied in good faith on the consultant and materially changed its position by building the new plant.[73]

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[67] *See* Uniform Trade Secrets Act § 1(4) (1979) ("'Improper means' includes. . . inducement of a breach of a duty to maintain secrecy,. . . .").

[68] *See* Uniform Trade Secrets Act § 1(2)(ii)(B)(II) (1979). For an example of such activities, see B.F. Goodrich Co. v. Wohlgemuth, 117 Ohio App. 493, 192 N.E.2d 99 (1963) (hiring away of key employees skilled in the development of pressurized space suits).

[69] *See* Uniform Trade Secrets Act § 1(2)(ii)(C) (1979) ("'misappropriation' means: . . . ii) disclosure or use of a trade secret of another without express or implied consent by a person who. . . C) before a material change of his [or her] position, knew or had reason to know that it was a trade secret and that knowledge of it had been acquired by accident or mistake.").

[70] *See* E.I. du Pont de Nemours & Co. v. Christopher, 431 F.2d 1012 (5th Cir.) *cert. denied,* 400 U.S. 1024 (1970) (aerial reconnaisance of chemical plant under construction used to determine the secret of competitor's chemical process).

[71] *See* Uniform Trade Secrets Act § 1(2) (1979).

[72] *See id.* § 3.

[73] *See id.* §§ 1(2) & (3); Klitzke, *supra* note 8, at 299-300.

3. Improper Means

The meaning of "misappropriation" turns on the definition of "improper means."[74] This definition consists of a nonexclusive listing of actions that constitute improper means.[75] The list of improper means includes: theft, bribery, misrepresentation, breach or the inducement of a breach of a duty to maintain secrecy, and espionage through electronic or other means.[76]

The comments to section one include a list of actions that are to be considered "proper" means.[77] This list includes: independent discovery; discovery achieved through "reverse engineering;"[78] discovery under a license from the trade secret owner; observations of the item in public use or displays; and acquisition of the information from the published literature.[79]

B. Remedies

The Uniform Act allows both injunctive and monetary relief for the misappropriation of trade secrets.[80] This section summarizes the pertinent provisions of the Act on injunctive and monetary relief.[81]

1. Injunctive Relief

The Act allows a court to enjoin either actual or threatened misappropriation of a trade secret.[82] Thus, the Act provides a mechanism by which a trade secret may be protected before disclosure actually occurs.[83] The Act also allows a court to condition future use of a trade secret upon payment of a royalty in situations in which an injunction seems un-

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[74] Klitzke, *supra* note 8, at 295.

[75] *See* Uniform Trade Secrets Act § 1(1) (1979).

[76] *Id.; see also* Root & Blynn, *Abandonment of Common-Law Principles: The North Carolina Trade Secrets Protection Act,* 18 Wake Forest L. Rev. 823, 832-35 (1982) (comparing the Uniform Act's provisions with the North Carolina Act's definition of a prima facie case of misappropriation).

[77] *See* Unif. Trade Secrets Act, 14 U.L.A. 542 (comments to § 1) (1980).

[78] "Reverse engineering" refers to the process of starting with the finished product and working backwards to discover the means by which the end result is produced. *See id.*

[79] *See id.*

[80] *See* Uniform Trade Secrets Act §§ 2 & 3 (1979).

[81] *See infra* text accompanying notes 82-101.

[82] Uniform Trade Secrets Act § 2 (1979). Mere possession of trade secrets, however, does not justify an injunction unless there is actual or threatened misappropriation. *See* Tubular Threading, Inc. v. Scandaliato, 443 So.2d 712 (La. Ct. App. 1983).

[83] *See* Uniform Trade Secrets Act § 2 (1979).

reasonable.[84] A court may compel affirmative acts to protect a trade secret in "appropriate" situations.[85]

The Act provides that injunctions should continue for the amount of time needed to deprive the misappropriator of the lead time which would otherwise have been gained by the misappropriation.[86] This rule operates to deprive the misappropriator of any "headstart" gained over other competitors due to the misappropriation; the headstart rule developed as a common law measure of the appropriate duration of an injunction.[87] The headstart rule, however, is not the only time measure used at common law; a perpetual injunction may be granted as an appropriate remedy in some cases.[88]

A perpetual injunction permanently bars a competitor from using the information even after the misappropriator can no longer be said to derive any benefit from the misappropriation.[89] The Uniform Act rejects the use of perpetual injunctions.[90] The comments indicate that the maxi-

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[84] *See id.* This provision has generated some controversy, however, and has been the subject of modifications by various states and by the Commissioners on Uniform Laws. *See infra* text accompanying notes 113-72.

[85] Such acts would include the return of documents or models which incorporate the secret information. *See* Uniform Trade Secrets Act § 2(c) (1979).

[86] *See* Uniform Trade Secrets Act § 2(a) (1979) & 14 U.L.A. 544-45 (comments to § 2) (1980).

[87] The comments to § 2 explain the headstart rule as based on the general principle "that an injunction should last for as long as is necessary, but no longer than is necessary, to eliminate the commercial advantage or 'lead time' with respect to good faith competitors that a person has obtained through misappropriation." In general, therefore, an injunction should terminate when a former secret becomes either generally known to or generally knowable by competitors. Unif. Trade Secrets Act, 14 U.L.A. 544 (comments to § 2) (1980); *see* K-2 Ski Co. v. Head Ski Co., 506 F.2d 471 (9th Cir. 1974) (cited as an example of the headstart rule by the comments.).

The Act does not specify, however, whether the "lead time" is to be measured by the defendant's proven ability to independently develop the secret or by general standards of the industry. *See* 3 R. Milgrim, *supra* note 13, at Appendix A, A-8 to -9 & nn. 12 & 14.

[88] *See, e.g.,* Molex, Inc. v. Nolen, 759 F.2d 474 (5th Cir. 1985); Shellmar Products Co. v. Allen-Qualley Co., 87 F.2d 104 (7th Cir.), *cert. denied,* 301 U.S. 695 (1937); Elcor Chemical Corp. v. Agri-Sul, Inc., 494 S.W.2d 204 (Tex. Civ. App. 1973). *See generally* Berryhill, *Trade Secret Litigation: Injunctions and Other Equitable Remedies,* 48 U. Colo. L. Rev. 189, 204-07 (1977) [hereinafter cited as Berryhill] (concluding that the prevailing standard for the duration of an injunction is the amount of time in which a defendant could independently duplicate the process or product without the secret); Hutter, *supra* note 1, at 35-37 (reaching the same conclusion); M. Jager, *supra* note 1, at § 7.02[3], 7-22 to -33; 2 R. Milgrim § 7.08[1].

[89] *See, e.g.,* Elcor Chemical Corp. v. Agri-Sul, Inc., 494 S.W.2d 204 (Tex. Civ. App. 1973); Unif. Trade Secrets Act, 14 U.L.A. 545 (comments to § 2) (1980).

[90] *See* Uniform Trade Secrets Act § 2(a) (1979) & 14 U.L.A. 544-45 (comments to § 2) (1980).

mum appropriate duration for an injunction would be the amount of time in which the secret would have been discovered through proper means such as reverse engineering.[91] The Act thus deprives the misappropriator of any advantage gained through the misappropriation without unduly hampering the misappropriator's competitive ability.[92]

2. Monetary Relief

Damages for actual losses caused by misappropriation are recoverable in addition to or in lieu of injunctive relief.[93] The Act also allows recovery for any unjust enrichment that is not counted in the computation of actual losses.[94] Recoveries for actual damages, however, ordinarily are limited to the time period in which the misappropriation occurs, but in which no injunction has been issued to prohibit the misappropriation.[95] This rule reflects the notion that once the misappropriator is enjoined, the owner of the secret suffers no further damages and the defendant makes no further profits.[96] If the court chooses not to grant an injunction, then damages accrue from the time of misappropriation until the expiration of the information's status as a secret plus any additional

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[91] *Id.* at 544-45.

[92] *See id.*

[93] Uniform Trade Secrets Act § 3(a) (1979). The observations made in this section of the article refer to the original damages provision of the Act. This provision has been rewritten. *See infra* text accompanying notes 173-233.

[94] The original § 3(a) provides: "In addition to or in lieu of injunctive relief, a complainant may recover damages for the actual loss caused by misappropriation. A complainant may also recover for the unjust enrichment caused by the misappropriation that is not taken into account in computing damages for actual loss." Uniform Trade Secrets Act § 3(a) (1979).

[95] *See* Unif. Trade Secrets Act, 14 U.L.A. 547 (comments to § 3) (1980) ("A claim for actual damages and net profits can be combined with a claim for injunctive relief, but, if both claims are granted, the injunctive relief will ordinarily preclude a monetary award for a period in which the injunction is effective.").

[96] *See, e.g.*, Curtiss-Wright Corp. v. Edel-Brown Tool & Die Co., 407 N.E.2d 319, 327 (Mass. 1980).

period in which the misappropriator retains an advantage over good faith competitors.[97]

An award of punitive damages for "willful and malicious" misappropriation is allowed by the Act.[98] Awards of punitive damages, however, are limited to an amount that is twice the award of actual losses and unjust enrichment damages.[99]

3. Attorney's Fees

Section four of the Act authorizes the court to award reasonable attorney's fees to a prevailing party if: i) a claim of misappropriation is made in bad faith; ii) a motion to terminate an injunction is resisted in bad faith; or iii) the misappropriation was willful and malicious.[100] By applying this section to bad faith claims and resistances to termination, the Act makes it clear that prevailing defendants, as well as plaintiffs, should recover their attorney's fees in situations in which the other party acts reprehensibly.[101]

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[97] The Act applies the headstart rule to the measurement of monetary relief. Damages for misappropriation thus are allowed only for the time in which the information is entitled to protection as a trade secret, plus any additional time in which the misappropriator retains an advantage over good faith competitors. Unif. Trade Secrets Act, 14 U.L.A. 547 (comments to § 3) (citing Conmar Products Corp. v. Universal Slide Fastener Co., 172 F.2d 150 (2d Cir. 1949) & Carboline Co. v. Jarboe, 454 S.W.2d 540 (Mo. 1970)) (1980); *see also* Reinforced Molding Corp. v. General Electric, 592 F. Supp. 1083, 1088 (W.D. Pa. 1984) (recovery of defendant's profits for the time period beginning with the initial use of the misappropriated secret and continuing for the amount of time saved by the misappropriator). *But see* USM Corp. v. Marson Fastener Corp., 392 Mass. 334, 467 N.E.2d 1271, 1285 (1984) (headstart rule inapplicable to cases in which there was never any publicly accessible way by which the secret could have been discovered).

[98] Uniform Trade Secrets Act § 3(b) (1979).

[99] *Id.* As to the policies underlying punitive damages in trade secret litigation, see *infra* text accompanying notes 234-71.

[100] Uniform Trade Secrets Act § 4 (1979). Such awards are justified as a deterrent to specious claims. *See id.*, 14 U.L.A. 548 (comments to § 4) (1980).

[101] *See* Uniform Trade Secrets Act § 4 (1979).

C. Displacement of Other Law

The Uniform Act displaces conflicting tort, quasi-contract, and restitutionary law that might otherwise constitute the basis of liability.[102] The Act, however, does not displace contractual or other civil liability, such as liability for breach of an agent's duty to his principal, that is not based on misappropriation of a secret, nor does it displace criminal liability for misappropriation.[103] The comments state that the Act does not displace contractual liabilities, whether express or implied-in-fact;[104] the Act also leaves intact duties imposed by law that are not dependent on the existence of secret information, such as the law of agency.[105]

D. Specific Problems with the Act

Several problems with the Act's provisions have been noted by commentators.[106] This article focuses on five major problems with the Act's provisions: 1) the amount of discretion given to courts in deciding when a reasonable royalty is a proper remedy;[107] 2) problems with the measurement of actual damages and unjust enrichment;[108] 3) the authorization

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[102] *Id.* § 7(a). Theories of recovery used by courts include: contract (express and implied-in-fact), tort, property, and unjust enrichment. *See, e.g.,* R. Ellis, Trade Secrets 2-14 (1953). The Act displaces these theories of recovery, if used to protect competitively significant information, to effectuate the Act's unitary definition of a "misappropriation" and its single statute of limitations. *See infra* text accompanying notes 284-313.

[103] *See* Uniform Trade Secrets Act § 7(b) (1979) & 14 U.L.A. 550 (comments to § 7) (1980). As originally worded, § 7 was susceptible of an interpretation that would displace contractual liabilities. *See infra* text accompanying notes 284-313.

[104] Unif. Trade Secrets Act, 14 U.L.A. 550 (comments to § 7) (1980).

[105] *See id.; see also* Restatement (Second) of Agency § 396 (1957) (agent's duty to principal to maintain secrecy of confidential information).

[106] *See* M. Jager, *supra* note 1, at § 3.04; 3 R. Milgrim, *supra* note 13, at Appendix A, A-1 to -15 & nn. 1-25; W. LaFuze, *The Uniform Trade Secrets Act,* Paper Presented at the Oregon-Washington State Patent Law Ass'n Seminar, Feb. 26-27, 1982, 4-10 & 11-12 [hereinafter cited as W. LaFuze]; Klitzke, *supra* note 8, at 284-309; *see also* Root & Blynn, *Abandonment of Common-Law Principles: The North Carolina Trade Secrets Protection Act,* 18 Wake Forest L. Rev. 823, 832-44 (1982) (examining the Uniform Act and the North Carolina Act; the latter was developed in response to perceived weaknesses in the Uniform Act).

Several intellectual property bar associations passed resolutions favoring the amendment of several provisions of the Act. *See* ABA Patent, Trademark, & Copyright Section Resolutions 206-3 to -6, approved Aug. 8, 1981, *reprinted in* W. LaFuze, *supra,* at 20-21; State Bar of Texas Intellectual Property Section Resolutions 1-7, approved July 3, 1981, *reprinted in* W. LaFuze, *supra,* at 22-23; American Patent Law Association Unfair Competition and Trade Secrets Committee Resolutions 1-6, Dec. 1981, *reprinted in* W. LaFuze, *supra,* at 23-25.

[107] *See infra* text accompanying notes 113-72.

[108] *See infra* text accompanying notes 173-233.

of punitive damages;[109] 4) the failure to explicitly state that contractual liabilities are not displaced;[110] and 5) the uncertainty of whether the Act applies to a continuing misappropriation that begins before the effective date of the Act.[111] The next section of the article discusses these problems and examines the changes made by the adopting states and the amendments recently adopted by the Commissioners.[112]

II. Problems and Resolutions

A. Reasonable Royalties

One type of monetary relief which a plaintiff might recover in a trade secret case is a "reasonable royalty."[113] This type of relief may be either a set percentage of the defendant's profits[114] or it may be a single sum which represents the total amount of a percentage of defendant's profits over the period of misappropriation.[115] The amount of the royalty which should be awarded in a given case is the amount which a willing buyer and a willing seller would agree upon for the use of the secret.[116] Courts view this measure of a royalty as representing the value of that which has been taken from the trade secret owner.[117] The award of the

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[109] *See infra* text accompanying notes 234-83.

[110] *See infra* text accompanying notes 284-350.

[111] *See infra* text accompanying notes 351-86.

[112] *See infra* text accompanying notes 113-386.

[113] *See generally* 2 R. Milgrim, *supra* note 13, at § 7.08[3][b], 7-235 to -239; M. Jager, *supra* note 1, at § 7.03[2], 7-43 to -51; Johnson, *supra* note 43; 11 A.L.R.4th 12, 94-115 (collecting cases). A "royalty" is the payment of some amount that is based on the number of units sold by the defendant with the help of the misappropriated secret. Johnson, *supra* note 43, at 1025.

[114] *See, e.g.*, Structural Dynamics Research Corp. v. Engineering Mechanics Research Corp., 401 F. Supp. 1102, 1119-20 (E.D. Mich. 1975); Carter Products, Inc. v. Colgate-Palmolive Co., 214 F. Supp. 383 (D. Md. 1963); Kamin v. Kuhnau, 232 Ore. 149, 374 P.2d 912, 921 (1962); *cf.* Goldberg v. Medtronics, Inc., 686 F.2d 1219, 1229 (7th Cir. 1982) (10% of the defendant's profits on its sale of pacemaker leads awarded on a "contribution" theory).

[115] *See, e.g.*, Sikes v. McGraw-Edison Co., 665 F.2d 731, 736-37 (5th Cir.), *cert. denied*, 458 U.S. 1108 (1982); University Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518, 535-40 (5th Cir. 1974); Forest Laboratories, Inc. v. Formulations, Inc., 320 F. Supp. 211, 213 (E.D. Wis. 1970), *aff'd in relevant part, rev'd on award of attorney's fees*, 452 F.2d 621, 627-28 (7th Cir. 1971).

[116] *E.g.*, University Computing Co., 504 F.2d at 537; Forest Laboratories, 320 F. Supp. at 213.

[117] *See, e.g.*, University Computing Co. 504 F.2d at 537; Forest Laboratories, 320 F. Supp. at 213.

royalty thus compensates the plaintiff and avoids allowing the misappropriator to be unjustly enriched by the misappropriation.[118]

An award of a royalty seems particularly appropriate in situations in which the trade secret owner derives benefits from the secret in the form of a royalty, because there is often useful evidence in such cases as to past royalties or the contents of prior negotiations.[119] Such evidence allows the court to reach an informed decision as to what amount is reasonable.[120]

Another situation in which the royalty represents a useful remedy is when the plaintiff cannot prove actual damages, but the misappropriator has not profited from using the secret.[121] Thus, the owner might not recover anything under the more traditional formula of awarding damages for either the plaintiff's losses or the defendant's gains.[122] Such situations are not infrequent because it is often difficult for a plaintiff to establish causation with respect to lost sales or lower profits and misappropriation provides no guarantee of profit by the misappropriator.[123]

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[118] *See* M. Jager, *supra* note 1, at 7-45 to -50.

[119] *See, e.g.,* University Computing Co., 504 F.2d at 545-46; Carter Products, 214 F. Supp. at 393-94; Kamin v. Kuhnau, 232 Ore. at 156-57, 374 P.2d at 921; M. Jager, *supra* note 1, at 7-49.

[120] *Cf., e.g.,* National Conference of Commissioners on Uniform State Laws, Uniform Trade Secrets Act with 1985 Amendments (comments to § 3) (1985) [hereinafter cited as Uniform Trade Secrets Act with 1985 Amendments]. *But see* Johnson, *supra* note 43, at 1025-26 (criticizing the use of the royalty remedy as a tool of last resort when the facts are hopelessly muddled).

[121] *See, e.g.,* University Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518, 536-39 (5th Cir. 1974); Structural Research Corp. v. Engineering Mechanics Research Corp., 401 F. Supp. 1102, 1119 (E.D. Mich. 1975); Jet Spray Cooler, Inc. v. Crampton, 377 Mass. 170, 385 N.E.2d 1349 (1979); 2 R. Milgrim, *supra* note 13, at 7-239; M. Jager, *supra* note 1, at 7-50.

[122] *See infra* text accompanying notes 173-91 (discussing the more traditional measures of damages for trade secret misappropriation).

[123] The award of a royalty substitutes for an award of actual losses is such cases. *See, e.g.,* University Computing Co., 504 F.2d at 539-40; Structural Dynamics, 401 F. Supp. at 1119-20; Forest Laboratories, 320 F. Supp. at 213, *aff'd in relevant part,* 452 F.2d at 627-28; Jet Spray Cooler, 385 N.E.2d at 1357; Kamin v. Kuhnau, 232 Ore. at 156-57, 374 P.2d at 921.

A brief hypothetical helps illustrate the use of the royalty remedy. Suppose that "More Garbage Co." invents a new device that increases the capacity of garbage trucks. More Garbage, wishing to take full advantage of its device, enters into a licensing agreement whereby its device is used by "We Buildem" in manufacturing garbage trucks with increased capacity. Suppose further that payment is made to More Garbage for the trucks and More Garbage pays 95% of the price received to We Buildem, keeping 5% for itself under the agreement. If We Buildem starts selling the trucks on its own and uses More Garbage's secret device,[124] More Garbage may sue for trade secret misappropriation.[125] If there is direct evidence of lost sales caused by the misappropriation, such as breached contracts for trucks from More Garbage or sales to former customers of More Garbage, then More Garbage can recover the lost 5% per unit sold by We Buildem as actual losses caused by the misappropriation.[126]

Now suppose that We Buildem sells to new users of the trucks and expands the device's market by using the device to increase the capacity of dump trucks. Proving causation seems to present an almost insurmountable burden to the recovery of actual losses by More Garbage.[127] If an unjust enrichment theory is applied, it seems likely that More Garbage will recover at least the 5% of the unit price it would have received if We Buildem had adhered to the licensing agreement.[128] In effect, More Garbage would argue that, in breaching the agreement, We Buildem was unjustly enriched by its avoidance of the agreed upon amount of a royalty for each unit sold.[129]

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[124] The hypothetical assumes that the licensing agreement imposes a duty to maintain secrecy on We Buildem.

[125] *See* Kamin v. Kuhnau, 232 Ore. 139, 374 P.2d 912 (1962).

[126] More Garbage recovers this amount as losses it would not have suffered, but for We Buildem's breach of its duty of secrecy. *See id.* at 156-57, 374 P.2d at 921.

[127] Because We Buildem has entered a new market and is not in direct competition with More Garbage, but for causation probably cannot be proven. More garbage must show that, but for We Buildem's misappropriation, More Garbage would have made the dump truck sales. Although possible, there is nothing in the hypothetical to support such a claim. If More Garbage had prepared to build dump trucks and had negotiated contracts with parties who later bought trucks from We Buildem, More Garbage might be able to establish its actual losses on the sales of the dump trucks.

[128] *See, e.g.*, Kamin v. Kuhnau, 232 Ore. at 156-57, 374 P.2d at 921.

[129] *See id. See generally* Johnson, *supra* note 43, at 1015-22 (discussing awards of the defendant's gains as restitutionary relief). Although actual losses cannot be demonstrated, there is competent evidence from which a reasonable royalty may be determined.

To illustrate the situation in which the misappropriator makes no profit, suppose now that We Buildem terminates the agreement as before and uses the device to make dump trucks, but is unsuccessful in selling the dump trucks. There are no actual losses if More Garbage can continue to sell its garbage trucks through another manufacturer.[130] Also, because there is no profit on the dump trucks, there is nothing for We Buildem to disgorge if the court orders it to account for any unjust enrichment. Yet even though More Garbage cannot recover actual losses nor unjust enrichment damages, a reasonable royalty based on the licensing agreement and the number of dump trucks sold may be allowed to compensate it for the value of the secret device misappropriated by We Buildem.[131]

Additonal problems arise when more than one party is affected by a misappropriation.[132] Suppose that a disgruntled employee of We Buildem leaves to form her own company in direct competition with We Buildem. If the employee misappropriates the secret owned by More Garbage and licensed by We Buildem, may both the owner of the secret and the person from whom the secret was misappropriated sue, or may only one of these two sue for misappropriation?[133] If both sue, what is the amount of recovery and how is it split?[134]

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[130] More Garbage has lost nothing because its sales of the garbage trucks are assumed to have been made through another manufacturer. *But see* Johnson, *supra* note 43, at 1022-23. Professor Johnson states that: "[o]nce the trade secret is stolen, what is lost is more than the anguish of the breach of confidence. The secret is no longer that — suddenly there is competition."

Although legal remedies cannot undo what has been done (i.e., the release of the secret into the marketplace), this fact alone does not justify an approach to trade secret law different from other torts. The loss of life or limb cannot be replaced by monetary damages, yet that is exactly what the tort system does. Courts therefore have retained traditional tort causation principles in trade secret cases. *See, e.g.*, Hutter, *supra* note 1, at 39 & n. 232; 2 R. Milgrim, *supra* note 13, at § 7.08[3][a] & [b].

[131] In one sense, We Buildem has been unjustly enriched because its possession of the secret through misappropriation presumably saves it considerable efforts at independent development. Unjust enrichment damages, however, usually refer to the *profits* of the misappropriator, not merely to any economic benefits. *See infra* text accompanying notes 174-77. A royalty remedy thus affords relief otherwise unavailable to the plaintiff. *See, e.g.*, University Computing Co. v. Lykes-Youngstown Corp., 504 F.2d at 537; M. Jager, *supra* note 1, at 7-49 to -50.

[132] *See* Klitzke, *supra* note 8, at 305-06.

[133] *See id.;* Unif. Trade Secrets Act, 14 U.L.A. 546-47 (comments to § 3) (1980).

[134] The proper apportionment of recovery among several plaintiffs is an issue not discussed in the literature. *See* Klitzke, *supra* note 8; Johnson, *supra* note 43; Hutter, *supra* note 1.

Both the licensor and the licensee suffer injury from such misappropriations; the licensor suffers from reduced royalties due to reduced sales by We Buildem and We Buildem, the licensee, suffers by its lost profits incurred due to the sales by the misappropriator.[135] To adequately deter potential misappropriators, all parties who suffer should be compensated for their losses.[136] A royalty may be appropriate compensation for licensors such as More Garbage,[137] but appears less useful in compensating the licensee because the harm suffered by the licensee is the licensee's lost profits resulting from the misappropriation.

The use of a royalty as a remedy has been criticized as the analytically least attractive measure of monetary relief because of its possible misuse as a tool of last resort when the facts become too muddled.[138] Courts continue to use the royalty remedy, however, especially in cases where there is ample evidence of what the royalty should be, or when the defendant shows no profit and the plaintiff cannot establish its losses.[139]

1. Problems

Section two of the original Act allows the court to condition the future use of a trade secret upon the payment of a reasonable royalty if the court determines that it would be "unreasonable" to prohibit future use.[140] Objections to this rule seem to focus on the large amount of discretion conferred upon the courts by the ambiguity of the term "unreasonable."[141]

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[135] If the misappropriator makes no sales, then neither licensor nor licensee have suffered any actual losses.

[136] *See, e.g.*, Landes & Posner, *An Economic Theory of Intentional Torts*, 1 Int'l Rev. L. & Econ. 127, 127-36 (1981); Becker & Stigler, *Law Enforcement, Malfeasance, and Compensation of Enforcers*, 3 J. Legal Stud. 1, 13-16 (1974); *cf., e.g.*, Cortner v. Israel, 732 F.2d 267 (2d Cir. 1984) (exclusive licensee or owner who retains a right to royalties may sue for copyright infringement); Eden Toys, Inc. v. Florelee Undergarments Co., 697 F.2d 27, 36-37 (2d Cir. 1982) (nonexclusive licensee of a copyright may not sue for infringement). *But cf.* Waterman v. MacKenzie, 138 U.S. 252, 255 (1891) (licensees of patent may not sue for patent infringement; only patentees and assignees may do so). *See generally* 6 C. Wright & A. Miller, Federal Practice and Procedure § 1547 (1971) (discussing suits by assignees and licensees under the patent, copyright, and trademark laws).

[137] *See supra* text accompanying notes 119-20.

[138] *See* Johnson, *supra* note 43, at 1025-26.

[139] *See supra* text accompanying notes 113-31. *See generally* 11 A.L.R.4th 12, 94-100 (collecting cases).

[140] *See* Uniform Trade Secrets Act § 2(b) (1979).

[141] *See* 3 R. Milgrim, *supra* note 13, at Appendix A, A-9, n. 13; W. LaFuze, *supra* note 106, at 5; ABA Patent, Trademark, & Copyright Section Resolution 206-5, approved Aug. 8, 1981, *reprinted in* W. LaFuze, *supra* note 106, at 21.

Owners of secret information often seek injunctive relief as their primary remedy;[142] injunctions are advantageous because of the ability to maintain the secrecy of the information and to maintain the advantageous competitive position enjoyed due to the secret.[143] Granting a royalty in lieu of an injunction relegates the owner to seeking what amounts to damages, a remedy sometimes seen by trade secret owners as secondary.[144] Allowing the court to substitute a royalty for an injunction if the court concludes an injunction is "unreasonable" seems to open the door to judicial control of the marketplace by enlarging the number of situations in which an injunction is "unreasonable."[145]

The original comments to this section give two examples of situations in which an injunction might be considered unreasonable.[146] First, there may be an extremely important public interest, such as national defense, that is best served by allowing the misappropriation to continue.[147] The second example is of a situation in which a person acquires a trade secret in good faith and without knowledge of its misappropriation and reasonably relies upon his acquisition of the information.[148] The innocence or good faith of the user appears to underlie the conclusion that an injunction against reliance on information so acquired would be unreasonable.[149] The original comments, however, indicate that the owner of the trade secret should still recover compensation for the use of the secret once the innocent user has knowledge of the misappropriation.[150]

The amount of discretion conferred by the term "unreasonable" seems to allow the courts to enlarge the number of situations in which an injunction is denied in favor of a royalty.[151] The potential erosion of the

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[142] *See, e.g.,* 2 R. Milgrim, *supra* note 13, at § 7.08[1], 7-178; Berryhill, *supra* note 88, at 195.

[143] *See, e.g.,* Berryhill, *supra* note 88, at 189.

[144] *See, e.g., id.;* M. Jager, *supra* note 1, at § 7.02, 7-4 to -5.

[145] *See* W. LaFuze, *supra* note 106, at 5.

[146] *See* Unif. Trade Secrets Act, 14 U.L.A. 545-46 (comments to § 2(b) (1980).

[147] *See id.* The example given is Republic Aviation Corp. v. Schenk, 152 U.S.P.Q. 830 (N.Y. Sup.Ct. 1967), in which the court withheld injunctive relief because the injunction would have operated to endanger U.S. military personnel in Viet Nam by preventing the misappropriator from supplying an aircraft weapons control system. *See* Unif. Trade Secrets Act, 14 U.L.A. 545 (1980).

[148] *See* Unif. Trade Secrets Act, 14 U.L.A. 545-46 (1980).

[149] *See id.*

[150] *See id.* The comments also point out that in some situations, a court might conclude that the same facts which render an injunction inappropriate also render a royalty inappropriate. *See id.* at 546.

[151] *See* W. LaFuze, *supra* note 106, at 5.

availability of injunctive relief through judicial enlargement of the circumstances in which injunctive relief is "unreasonable" might discourage innovation, especially since injunctive relief is so often viewed as the owner's primary remedy.[152] The term "unreasonable" seems more susceptible of judicial enlargement than does "exceptional." Thus, some commentators conclude that the use of a royalty in lieu of injunctive relief should be restricted to "exceptional circumstances," thereby giving more assurance of the availability of injunctive relief to trade secret owners.[153]

2. Resolutions

a. Changes by the States

The Act adopted by Indiana contains a slightly modified section providing for an award of a reasonable royalty.[154] Indiana limits the court's discretion in ordering a reasonable royalty in lieu of an injunction to "exceptional circumstances."[155]

The Minnesota version,[156] however, appears to grant judges even more discretion than the Uniform Act allows.[157] Minnesota's provision allows the court, upon a determination of the unreasonableness of prohibiting future use, to "condition future use upon payment of 1) an equitable royalty for no longer than the period of time the use could have been prohibited; or 2) other compensation."[158] The Minnesota courts are presumably free to choose among several options: a royalty based on the amount of use; a lump sum; or a combination of the lump sum and amount of use methods.[159] By allowing the courts more discretion, the Minnesota version provides for greater flexibility in fashioning relief.[160] Minnesota, though, may allow too much discretion; the increased uncertainty as to the availability of injunctive relief may lead to lower levels of investment in research and development.[161]

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[152] *See* W. LaFuze, *supra* note 106, at 12; *cf.* Root & Blynn, *Abandonment of Common-Law Principles: The North Carolina Trade Secrets Protection Act,* 18 Wake Forest L. Rev. 823, 840 (1982) (discussing injunctive relief under the Uniform Act and the North Carolina Act).

[153] *See, e.g.,* ABA Patent, Trademark, & Copyright Section Resolution 206-5, approved Aug. 8, 1981, *reprinted in* W. LaFuze, *supra* note 106, at 21.

[154] *See* Ind. Code Ann. § 24-2-3-3(b) (West Supp. 1985).

[155] *See id.*

[156] Minn. Stat. Ann. § 325C.02(b) (West 1981).

[157] *See id.*

[158] *Id.*

[159] *See id.*

[160] *See id.*

[161] *See supra* text accompanying notes 151-53.

b. Changes by Amendments

The recent amendments to section two of the Act require a finding that there are "exceptional circumstances" before the court may condition future use upon a reasonable royalty.[162] Thus, the amended Act comports with the Indiana Act only;[163] the states which have adopted the Act almost verbatim retain the original rule allowing royalties in "unreasonable" circumstances.[164] The changes made in the comments to the Act indicate that there are no differences between the standards; indeed, the new comments use the terms "exceptional circumstances" and "unreasonable situations" interchangeably.[165] Because the two standards are evidently the same, the amendments apparently made no substantive changes in the Act's content.[166] Even though the amendment represents merely a change in language, the use of "exceptional circumstances" seems better than the original standard of "unreasonable" because the former appears to provide additional certainty as to the availability of injunctive relief by discouraging judicial enlargement.[167]

3. Uniformity

The various changes from the original Act,[168] however, do not necessarily thwart the Act's underlying goal of uniformity.[169] Courts may construe the term "unreasonable" to mean "exceptional" and vice versa.[170] The new comments to the amended section indicate that there is no substantial difference between the standards; the "good faith" misappropriation exception, previously an example in the comments, is now written into the Act and the national defense example is retained as a type

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[162] Uniform Trade Secrets Act with 1985 Amendments § 2(b) (1985).

[163] *Compare id. with* Ind. Code Ann. § 24-2-3-3(b) (West Supp. 1985).

[164] *See* Ark. Stat. Ann. § 70-1002(b) (Supp. 1985); Cal. Civ. Code § 3426.2(b) (West Supp. 1985); Conn. Gen. Stat. Ann. § 35-52 (b) (West Supp. 1985); Del. Code Ann. tit. 6, § 2002(b) (Supp. 1984); Idaho Code § 48-802(b) (Supp. 1985); Kansas Stat. Ann. § 60-3321(b) (1983); La. Rev. Stat. Ann. § 51:1432(b) (West Supp. 1986); 1985 Mont. Laws ch. 104, § 3(2); N.D. Cent. Code § 47-25.1-02(2) (Supp. 1983); Wash. Rev. Code Ann. § 19.108.020(2) (West Supp. 1985).

[165] *See* Uniform Trade Secrets Act with 1985 Amendments at 11 (1985). Whereas the original comments read: "Situations in which this unreasonableness can exist include . . .", the amended comments state: "Exceptional circumstances include . . . ." *See id.*

[166] *See id.*

[167] *See supra* text accompanying notes 151-53.

[168] *See supra* text accompanying notes 154-67.

[169] *See infra* text accompanying notes 170-72.

[170] *See* Uniform Trade Secrets Act with 1985 Amendments at 11 (amended comments to amended § 2(b)) (1985).

of "exceptional circumstance."[171] If the two standards are equated, the law's impact in particular cases would be uniform.[172] Because of the absence of cases ruling on this provision of the Act, no final conclusions can be drawn regarding the impact these changes will have on the Act's ability to achieve uniformity in this area.

B. Damages

The area of damages awarded for trade secret misappropriation is murky at best;[173] some general rules, however, have emerged. There are two basic measures of damages in trade secret cases: the plaintiff's losses and the defendant's profits.[174] The plaintiff's losses represent the traditional common law approach of compensation.[175] The measure of defendant's profits, however, reflects the notion that one who misappropriates a trade secret is unjustly enriched by using the secret and must therefore disgorge the profits gained by the misappropriation.[176] As a general matter, a plaintiff cannot recover both measures, since that would amount to a double recovery.[177]

The different measures, however, may be applied to different elements of damages in the same case.[178] In *Clark v. Bunker*,[179] for instance, the

[171] *See id.* at 9-10 (amended § 2(b)) & 11 (amended comments to § 2(b)).

[172] Uniformity of application seems much more likely if the two standards are equated because of the reduced probability that some courts might enlarge the number of situations in which the royalty might be used in lieu of an injunction. *See id.;* W. LaFuze, *supra* note 106, at 5.

[173] *See, e.g.,* Telex Corp. v. Int'l Business Machines Corp., 510 F.2d 894, 930 (10th Cir.), *cert. dismissed,* 423 U.S. 802 (1975). Although Oklahoma law applied, the court found no Oklahoma cases dealing with the appropriate measure of damages. Turning to the general law of trade secrets, the court observed: "Unfortunately, the general law as to the proper measure of damages is far from uniform." *Id.*

[174] *See generally* 2 R. Milgrim, *supra* note 13, at § 7.08[3], 7-229 to -242; M. Jager, *supra* note 1, at § 7.03[2], 7-40 to -57; Hutter, *supra* note 1, at 39-42; *cf.* Curtiss-Wright Corp. v. Edel-Brown Tool & Die, 407 N.E.2d 319, 326-27 (Mass. 1980) (recognizing three measures: defendant's profits, plaintiff's losses, and a reasonable royalty).

[175] *See, e.g.,* Sperry Rand Corp. v. A-T-O, Inc., 447 F.2d 1387, 1392-93 (4th Cir. 1971), *cert. denied,* 409 U.S. 892 (1972).

[176] *See, e.g., id.;* Johnson, *supra* note 43, at 1015-22.

[177] *E.g.,* 2 R. Milgrim, *supra* note 13, at § 7.08[3], 7-231 & n. 81. *Contra* Minnesota Mining & Mfg. Co. v. Technical Tape Corp., 192 N.Y.S.2d 102, 123 (N.Y.Sup.Ct. 1959), *aff'd,* 226 N.Y.S.2d 1021 (N.Y. App. Div. 1962).

[178] *See, e.g.,* Tri-Tron Int'l v. Velto, 525 F.2d 432, 437 (9th Cir. 1975); Clark v. Bunker, 453 F.2d 1006, 1011 (9th Cir. 1972); *cf.* Telex Corp. v. Int'l Business Machines Corp., 510 F.2d 894, 931-32 (10th Cir.), *cert. dismissed,* 423 U.S. 802 (1975) (in which some double recovery inadvertently may have occurred through the use of the two different measures).

[179] 453 F.2d 1006 (9th Cir. 1972).

owner of trade secrets regarding pre-paid funeral services received an award consisting of the profits made by the defendant by using the secret.[180] In addition, the plaintiff was awarded income on some trust funds as actual losses; the plaintiff would have received this income but for the misappropriation.[181] The award of trust income was not a double recovery because the court viewed such income as separate from the lost profits on the sale of funeral packages.[182] The *Clark* case neatly presents a situation in which utilizing different measures for different elements does not amount to a double recovery.[183] It appears clear that different measures may not be applied to the same element of damages, since such an application does result in a double recovery.[184]

Both methods of measurement present difficulties in application.[185] Proving actual losses suffered is often problematic because of the difficulty of establishing causation with regard to lost profits and sales.[186] Unless the plaintiff and defendant are the only two competitors in a limited market, the plaintiff faces the difficult task of pointing to commercial transactions and proving that, but for the misappropriation, the plaintiff's product would have been chosen.[187] The measurement of the defendant's profits is difficult from the defendant's perspective because of the burden borne by the defendant in attempting to justify the deduction of expenses from gross revenues and apportioning the amount of profits due to the misappropriation.[188]

Sometimes a court will examine both measures of damages and award the greater amount.[189] Thus, a court might award the trade secret owner the amount of benefit gained by the defendant even though the plain-

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[180] *See id.*

[181] *See id.* at 1011.

[182] *See id.*

[183] *See id.*

[184] Sperry Rand Corp. v. A-T-O, Inc., 447 F.2d 1387, 1393 (4th Cir. 1971), *cert. denied,* 409 U.S. 892 (1972); *see, e.g.,* Tri-Tron Int'l v. Velto, 525 F.2d 432 (9th Cir. 1975); Telex Corp. v. Int'l Business Machines Corp., 510 F.2d 894 (10th Cir.), *cert. dismissed,* 423 U.S. 802 (1975); Hutter, *supra* note 1, at 39.

[185] *See infra* text accompanying notes 186-88.

[186] *See, e.g.,* Johnson, *supra* note 43, at 1023-25.

[187] *See id.*

[188] *See, e.g., id.* at 1016 & 1018-22; U.S.M. Corp. v. Marson Fastener Corp., 393 Mass. 334, 467 N.E.2d 1271, 1276 (1984).

[189] *See, e.g.,* Jet Spray Cooler, Inc. v. Crampton, 377 Mass. 170, 385 N.E.2d 1349, 1356 (1979).

tiff can prove very few, if any, actual losses.[190] The rationale behind this rule is that potential misappropriators will be discouraged from misappropriating information by the elimination of the hope or belief that their profits will exceed the losses of the secret's owner.[191]

1. Problems

The Act allows a plaintiff to recover damages for actual losses caused by misappropriation and for any unjust enrichment not taken into account in computing actual losses.[192] The original damages section, however, presents several problems. First, this section does not specify whether the unjust enrichment recovery beyond actual losses is within the court's discretion or is obligatory.[193] A second problem is that the provision does not answer the question of whether a prevailing plaintiff should recover the greater amount of the plaintiff's own losses or the misappropriator's profits.[194] Third, the question remains whether the plaintiff bears the burden of proving the amount of the misappropriator's profits not attributable to the actual losses suffered by the plaintiff.[195] Fourth, the language of the Act is unclear regarding recovery by several owners or licensees of trade secrets for damages caused by the misappropriation of a secret from any one of them.[196] Finally, the Act is silent on the issue of awarding a reasonable royalty when neither actual damages nor unjust enrichment are provable.[197] As previously mentioned, the remedy at common law in situations of this latter type is to award the plaintiff a reasonable royalty in lieu of other damages.[198]

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[190] *See, e.g., id.;* Hutter, *supra* note 1, at 41; *cf.* Johnson, *supra* note 43, at 1023-25 (plaintiff's lost profits a better measure of recovery when defendant makes no profit or the profits made are insignificant compared to plaintiff's losses).

[191] *See* Jet Spray Cooler, 377 Mass. 170, 385 N.E.2d at 1356.

[192] Uniform Trade Secrets Act § 3(a) (1979). The original § 3(a) provides: "In addition to or in lieu of injunctive relief, a complainant may recover damages for the actual loss caused by misappropriation. A complainant also may recover damages for the unjust enrichment caused by the misappropriation that is not taken into account in computing actual loss."

[193] *See id.;* 3 R. Milgrim, *supra* note 13, at Appendix A, A-11, n. 19; W. LaFuze, *supra* note 106, at 6.

[194] *See* Uniform Trade Secrets Act § 3(a) (1979); 3 R. Milgrim, *supra* note 13, at Appendix A, A-11, n. 19.

[195] *See* Uniform Trade Secrets Act § 3(a) (1979).

[196] *See id.;* Klitzke, *supra* note 8, at 305-06.

[197] *See* Uniform Trade Secrets Act § 3(a) (1979); 3 R. Milgrim, *supra* note 13, at Appendix A, A-11, n. 19; W. LaFuze, *supra* note 106, at 6-7; ABA Patent, Trademark, & Copyright Section Resolution 206-4, approved Aug. 8, 1981, *reprinted in* W. LaFuze, *supra* note 106, at 21.

[198] *See supra* text accompanying notes 113-39.

2. Resolutions

a. Changes by the States

Both California[199] and Indiana[200] have added a subsection that allows a plaintiff to recover a "reasonable royalty" if neither actual losses nor unjust enrichment damages are provable. The Indiana section states: "[w]hen neither damages nor unjust enrichment are provable, the court may order payment of a reasonable royalty for no longer than the period during which the use could have been prohibited."[201] California's provision is quite similar.[202] While these changes help to clarify the original damages provision, California and Indiana fail to go further and address the other problems presented by the original damages provision.[203]

b. Changes by Amendment

The Commissioners' amendment rewrites this section.[204] Generally, the owner of a trade secret is entitled to damages for misappropriation; these damages "can include both the actual loss caused by misappropriation and the unjust enrichment caused by misappropriation that is not taken into account in computing actual loss."[205]

The statement that a prevailing plaintiff is entitled to damages for misappropriation appears to answer the question of whether the court's award is discretionary.[206] By the use of "entitled", the Act implies that the court is obliged to award the plaintiff all of the damages proven.[207] Furthermore, the Act makes it clear that "damages" includes both actual losses and unjust enrichment.[208] It thus appears that the court's award is obligatory regarding both actual losses and unjust enrichment damages, although the amendments could have been even clearer on

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[199] Cal. Civ. Code § 3426.3(b) (West Supp. 1985).

[200] Ind. Code Ann. § 24-2-3-4(b) (West Supp. 1985).

[201] *Id.*

[202] The California version provides: "If neither damages nor unjust enrichment caused by misappropriation are provable, the court may order payment of a reasonable royalty for no longer than the period of time the use could have been prohibited." Cal. Civ. Code § 3426.3(b) (West Supp. 1985).

[203] *See id.;* Ind. Code Ann. § 24-2-3-4(b) (West Supp. 1985).

[204] Uniform Trade Secrets Act with 1985 Amendments § 3(a) (1985).

[205] *Id.*

[206] *See infra* text accompanying notes 207-09.

[207] *See* Uniform Trade Secrets Act with 1985 Amendments § 3(a) (1985).

[208] *See id.*

this point.[209] The Act retains the prohibition against double recoveries.[210]

The final sentence of the amended section provides for the award of a reasonable royalty in lieu of damages measured by other methods.[211] This sentence indicates that a plaintiff may be awarded damages or may recover a reasonable royalty, but not both.[212] The award of the royalty is an exclusive measure which presumably will be requested when the plaintiff cannot prove a greater amount of damages by other methods.[213] The use of a royalty in such situations accords with the prevailing common law rule.[214] In addition, the amended comments address criticism of the royalty remedy; "competent" evidence of the amount of a reasonable royalty is required.[215] Thus, the amended provision attempts to prevent the use of a royalty as a last resort when the evidence is muddled.[216]

The amended provision's treatment of the royalty method emphasizes that the use of the royalty remedy excludes the use of other measures of relief.[217] Awarding a royalty to a complainant might be construed to cut off the availability of damages to any other parties who might have been injured, such as licensees, by the misappropriation.[218] This result follows the comments to section three; the comments state that only the "one from whom misappropriation occurred is entitled to a remedy."[219]

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[209] *See id.* The amended section still leaves room for the argument that the award of unjust enrichment damages is discretionary, not obligatory, because the phrase "can include" seems similar to the original "also may recover." The preferable construction would be that "can" refers to the potential *facts* which would justify the use of both remedies without creating a double recovery, not to the discretion of the court. In cases with the appropriate facts, the award of unjust enrichment damages should be obligatory. The award of both measures would depend thus on the facts only and not on the court's discretion. *See id.;* 3 R. Milgrim, *supra* note 13, at Appendix A, A-11, n. 19.

[210] *See* Uniform Trade Secrets Act with 1985 Amendments § 3(a) (1985).

[211] *Id.*

[212] *See id.*

[213] *See id.;* Uniform Trade Secrets Act with 1985 Amendments at 13 (comments to amended § 3 (a)) ("As an alternative to all other methods of measuring damages, a complainant can request that damages be based upon a demonstrably reasonable royalty. . . .") (1985).

[214] *See supra* text accompanying notes 113-39.

[215] *See* Uniform Trade Secrets Act with 1985 Amendments at 13 (amended comments to amended § 3 (a)) (1985).

[216] *See id.*

[217] *See* Uniform Trade Secrets Act with 1985 Amendments § 3, at 12-13 (1985).

[218] *See id.*

[219] Unif. Trade Secrets Act, 14 U.L.A. 547-48 (comments to § 3) (1980).

This approach, however, may lead to more instances of misappropriation because the misappropriator does not bear the full amount of harm he causes; only the harm to one owner or licensee is required as compensation.[220] Less deterrence of misappropriation, in turn, may lead to excessive expenditures to protect secrets and to less investments in developing secret information.[221]

Fortunately, the amended section three is also amenable to the better construction — that *any* person harmed by the misappropriation may recover damages.[222] In addition, the reference in the final sentence to the use of a royalty "[i]n lieu of damages measured by any other methods" seems easily construed as meaning that, for each individual complainant, a royalty serves as an exclusive measure of damages.[223] This phrase thus serves to restrict the use of other methods by each complainant, but the use of the royalty remedy by any single complainant does not prevent the others from recovering actual losses or unjust enrichment damages.[224] This construction presents the better view because it forces the misappropriator to fully compensate all parties injured by the misappropriation.[225]

The amendment fails to explicitly allow the prevailing plaintiff to recover the greater amount of actual damages or unjust enrichment.[226] In addition, the question remains open whether the plaintiff bears the burden of allocating the amount of the misappropriator's profits not attributable to the plaintiff's losses.[227] Although the amended section perhaps does not go far enough in resolving all possible issues regarding damages, it provides much more clarity than that afforded by the original version and the provisions of California and Indiana.[228]

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[220] *See, e.g.*, Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. Chi. L. Rev. 652, 653-57 & 672-78 (1983); Landes & Posner, *supra* note 136, at 127-36.

[221] *See, e.g.*, Landes, *supra* note 220, at 672-74; Landes & Posner, *supra* note 136, at 127-36; Becker, *Crime and Punishment: An Economic Approach*, 76 J. Pol. Econ 169, 190-204 (1968).

[222] *See* Uniform Trade Secrets Act with 1985 Amendments § 3 (1985).

[223] *See id.*

[224] *See id.*

[225] *See id.*

[226] *See id.*

[227] *See id.*

[228] *Compare* Uniform Trade Secrets Act with 1985 Amendments § 3 (1985) *with* Uniform Trade Secrets Act § 3 (1979) *and* Cal. Civ. Code § 3426.3(b) (West Supp. 1985) *and* Ind. Code Ann. § 24-2-3-4(b) (West Supp. 1985).

3. Uniformity

It remains to be seen whether the changes in the Act regarding monetary relief will subvert the goal of uniformity.[229] The states which have adopted the orignal provision[230] may achieve uniformity through judicial construction of the Act. The original Act may be read to require the courts to award both actual losses and unjust enrichment[231] and, similarly, to allow the use of a reasonable royalty when neither actual losses nor unjust enrichment are provable.[232] Courts should forego the retention of discretion and should construe the Act to conform with the amended provision because the latter version provides greater clarity on the resolution of several significant issues.[233]

C. Punitive Damages

1. The Underlying Policies

Awarding punitive damages for willful and malicious misappropriation presents some difficult questions because of the interrelationships among three conceptually distinct goals: deterring potential misappropriators; encouraging private enforcement of the trade secret laws; and encouraging innovation.[234] The proper accommodation of these three interests requires the resolution of several questions regarding human behavior.[235] Depending on the assumptions made, different conclusions may be reached regarding the appropriate amount of recoveries in trade

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[229] No cases have yet construed the various damages provisions regarding the issues examined in the article.

[230] Ark. Stat. Ann. § 70-1003(a) (Supp. 1985); Conn. Gen. Stat. Ann. § 35-53(a) (West Supp. 1985); Del. Code Ann. tit. 6, § 2003(a) (Supp. 1984); Idaho Code § 48-803(1) (Supp. 1985); Kansas Stat. Ann. § 60-3322(a) (1983); La. Rev. Stat. Ann. § 51:1433 (West Supp. 1986); Minn. Stat. Ann. § 325C.03(a) (West 1981); 1985 Mont. Laws ch. 104, § 4(1); N.D. Cent. Code § 47-25.1-03(1) (Supp. 1985); Wash. Rev. Code Ann. § 19.108.030(1) (West Supp. 1985).

[231] The phrase "also may recover" should be construed to refer to the fact patterns in which an award of unjust enrichment damages in addition to actual losses does not amount to a double recovery. *See* 3 R. Milgrim, *supra* note 13, at Appendix A, A-11, n. 19; *supra* note 209.

[232] The original version does not explicitly prohibit the use of the royalty remedy. If the royalty is viewed as a measure of the unjust enrichment caused by the misappropriation, then the original Act may be read to allow an award of reasonable royalty. *See* Uniform Trade Secrets Act § 3(a) (1979).

[233] This approach thus offers more guidance to the courts and operates to achieve greater uniformity.

[234] *See, e.g.*, Landes, *supra* note 220, at 653-57 & 672-78; Landes & Posner, *supra* note 136, at 127-36; Becker, *supra* note 221, at 201-09; Mansfield, *Economics, Public Policy, and the Patent System*, 47 J. Pat. Office Soc. 292, 292-95 (1965).

[235] *See infra* text accompanying notes 245-261.

secret cases.[236] The following analysis posits that the optimal amount of recovery is that which results in the most efficient allocation of resources.[237] In order to achieve the optimal solution, "inefficient" misappropriations should be discouraged while "efficient" misappropriations encouraged.[238] Much of the following discussion also applies to the other remedies afforded by the Act. Because compensation, at a minimum, is usually seen as the optimal level of relief,[239] this article focuses only on the propriety of awarding amounts in excess of actual compensation.

A misappropriation is "inefficient" if it results in greater harms than the benefits it produces.[240] Suppose a chemical process is misappropriated. To the secret's owner, it may have been worth $20,000; to the misappropriator, perhaps $15,000 in reduced development costs. Besides these valuations, the misappropriation results in additional harm because other businesses, as well as the owner of the secret, may, in the future, choose not to invest in research because of the possibility of misappropriation.[241] Society thus wants to deter those misappropriations in which the harms outweigh the benefits.[242] To do so, compensatory damages are awarded to the owner of the secret.[243] Awarding damages also encourages private enforcement of the trade secret laws.[244]

Because not all misappropriators are caught and required to pay damages, the amount of damages paid in any given case should be increased to reflect the probability of non-punishment.[245] This possibility of non-punishment explains the use of treble damages in antitrust and patent actions.[246] Trebling, however, seems a rough and inelegant way to adjust damages for the likelihood of non-punishment.[247] Besides ad-

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[236] *See id.*

[237] *See generally* Landes, *supra* note 220, at 652-59 & 672-78. The analysis presented in the article is not intended to develop a comprehensive economic analysis of trade secret law. Rather, the economic approach is used to analyze the desirability of awarding punitive damages in trade secret cases.

[238] *See, e.g., id.* at 673-74.

[239] *See, e.g., id.* at 673.

[240] *E.g., id.*

[241] *See, e.g.,* Mansfield, *supra* note 221, at 292-95; Becker, *supra* note 234, at 201-07.

[242] *E.g.,* Landes, *supra* note 220, at 673-74.

[243] *E.g., id.*

[244] *See, e.g.,* Becker & Stigler, *supra* note 136, at 13-16.

[245] *E.g.,* Becker, *supra* note 221, at 192-93.

[246] Landes, *supra* note 220, at 676.

[247] *Id.* at 676, n. 48.

justing for the likelihood of non-punishment, treble damages provide additional incentives for private enforcement and disincentives for potential misappropriators.[248]

Why, then, do we not award quintuple damages for *all* trade secret misappropriations? Such an approach fails to recognize that some misappropriations may be desirable.[249] Misappropriations benefit society by increasing the use of advantageous information, thus increasing economic efficiencies in the trade.[250] If the benefits of a misappropriation outweigh the harm to society, then society's interest lies in promoting the misappropriation.[251] To avoid the prospect of having owners of secrets expend excessive amounts of resources on protecting themselves from misappropriation, misappropriators must pay compensation for the owner's loss of the secret.[252] The compensation, however, should be adjusted upward from actual losses to reflect the probability of non-punishment.[253]

Choosing the optimal amount of recovery for trade secret misappropriation thus depends on the resolution of questions regarding 1) the probability of non-punishment and 2) the impact the chosen level of recovery will have on future decisions to invest in innovation.[254] One model developed for the profit to society resulting from beneficial acts (such as innovation) indicates that persons who might engage in research and development are risk averse.[255] This conclusion implies that trade secret owners should receive amounts in addition to actual losses plus the adjustment for non-punishment.[256] This increased amount of recovery would decrease the probability of non-punishment by increasing the incentives for private enforcement.[257] Although the likelihood of non-punishment might be of primary concern to risk averse persons, increasing the amount of recovery increases the expected value of punishment

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[248] *See, e.g., id.* at 676-77.

[249] *See, e.g., id.* 652-53.

[250] The value of the secret derives from the advantage it gives its owner over his competitors; it increases efficiency.

[251] *E.g.,* Landes, *supra* note 220, at 673-74.

[252] *See, e.g., id.*

[253] *See, e.g., id.* at 673-74.

[254] *See supra* text accompanying notes 234-53.

[255] Becker, *supra* note 221, at 201-07.

[256] *See id.*

[257] *See, e.g., id.*

for misappropriation, thus increasing deterrence and providing additional incentives for innovation.[258]

Arguably, innovators are risk neutral or perhaps risk-preferring; spending large amounts of money to develop competitive advantages might indicate the latter. It also seems likely that innovators in different industries may react differently to uncertainty.[259] Some innovators may consider the possibility of misappropriation relatively unimportant if, for example, the innovator expects to recapture the development costs within the amount of time required for even unfair competitors to reach the market. Assumptions about how innovators react to uncertainty may affect the decision as to the proper amount of recovery. If innovators are risk-preferring, not as much deterrence of misappropriation is needed and, consequently, lower amounts of recovery are optimal.[260] Compensation alone may be enough; treble damages almost certainly would be too much.[261]

As the previous discussion indicates, the proper amount of recovery in trade secret cases depends on the resolution of questions about how competitors will act under conditions of uncertainty.[262] Because these questions form the bases for determining the optimum level of sanctions for trade secret misappropriation, differing resolutions of the underlying questions results in the choice of differing levels of sanctions.[263]

2. The Uniform Act

The Act provides for the imposition of punitive damages if the misappropriation was "willful and malicious."[264] Because the term "willful and malicious" is not defined in the Act, the prevailing common law provides an appropriate reference in determinging if punitive damages are appropriate in a given case.[265] Situations in which a misappropriator's conduct has been characterized as willful and malicious in-

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[258] *See, e.g., id.;* Landes, *supra* note 220, at 672-78.

[259] *Cf.* Becker, *supra* note 221, at 201-04 (discussing arguments about the desirability of a "strong" or "weak" patent system).

[260] *See id.*

[261] *See id.*

[262] *See supra* text accompanying notes 240-60.

[263] *See, e.g.,* Becker, *supra* note 221, at 201-04; Mansfield, *supra* note 234, at 292-95.

[264] Uniform Trade Secrets Act § 3(b) (1979).

[265] *See, e.g.,* Hutter, *supra* note 1, at 43; 2 R. Milgrim, *supra* note 13, at § 7.08[3][c], 7-242 to -246 (collecting cases).

clude: undisclosed self-dealing,[266] industrial espionage,[267] and inducing another to breach a duty of confidentiality.[268] Awards of punitive damages under the Act are limited to twice the amount of the damages awarded for actual losses and unjust enrichment.[269] The Act thus leaves the resolution of the underlying questions to the courts by allowing them discretion as to awards of punitive damages. If the courts view the probability of non-punishment as fairly high, or view innovators as risk averse, then punitive damages should be awarded to ensure that recoveries are at the optimal level.[270] Setting a limit on punitive damages appears to reflect the Commissioners' view that no more than twice the amount of actual damages is needed to achieve the optimum level of sanctions.[271]

3. Different Approaches

Two states, Arkansas and Louisiana, did not enact the Uniform Act's provision allowing punitive damages for willful and malicious misappropriations.[272] Neither state, however, enacted a provision stating that punitive damages were not allowed.[273] Thus, it seems possible for the courts of either state to impose punitive damages under appropriate circumstances.[274] The comments to the Louisiana section authorizing at-

[266] *E.g.*, Molex, Inc. v. Nolen, 759 F.2d 474 (5th Cir. 1985).

[267] *E.g.*, E.I. du Pont de Nemours & Co. v. Christopher, 431 F.2d 1012 (5th Cir.), *cert. denied*, 400 U.S. 1024 (1970) (aerial reconnaisance of chemical plant during its construction).

[268] *E.g.*, Telex Corp. v. Int'l Business Machines Corp., 510 F.2d 894 (10th Cir.), *cert. dismissed*, 423 U.S. 802 (1975); Jackson v. Fontaine's Clinics, Inc., 481 S.W.2d 934, 938 (Tex. Civ. App. 1972), *rev'd on other grounds*, 499 S.W.2d 87 (Tex. 1973); *cf.* Jeter v. Associated Rack Corp., 607 S.W.2d 272, 274 (Tex. Civ. App. 1980), *cert. denied*, 454 U.S. 965 (1981) (former employees left and set up a competing business, taking trade secrets of their former employer). *See generally* 11 A.L.R.4th 12, 106-15 (collecting cases on the recoverability of punitive damages).

[269] *See* Uniform Trade Secrets Act § 3(b) (1979). This rule, however, offers little solace to plaintiffs who recover only a small amount of damages. 3 R. Milgrim, *supra* note 13, at Appendix A, A-12, n. 20.

[270] *See, e.g.*, Landes, *supra* note 220, at 673-78.

[271] *See, e.g., id.* at 676 & n. 48.

[272] *See* Ark. Stat. Ann. §§ 70-1001 to -1007 (Supp. 1985); La. Rev. Stat. Ann. §§ 51:1431 to 1439 (West Supp. 1986).

[273] *See* Ark. Stat. Ann. §§ 70-1001 to -1007 (Supp. 1985); La. Rev. Stat. Ann. §§ 51:1431 to 1439 (West Supp. 1986).

[274] Allowing punitive damages because of willful and malicious misappropriation of secrets appears to stretch the language of the damages provision to its limits. The Arkansas and Louisiana versions allow damages "for the actual loss" and "unjust enrichment caused" by the misappropriation; these phrases seem to limit the court's ability to award punitive damages because punitive damages cannot be considered "actual" losses

torney's fees in certain circumstances imply that punitive damages *are* allowed because awards of "exemplary damages" are to be considered in deciding whether to award attorney's fees.[275] If the courts in either Arkansas or Louisiana interpret the Act to allow punitive damages, the additional question arises as to whether those courts will follow the Act's limit on the amount of punitive damages.[276]

It remains unclear whether Arkansas and Louisiana will flatly prohibit punitive damages.[277] Such a rule would undermine the uniformity of the Act,[278] but may be justified as reflecting the judgment that compensation provides adequate incentive and deterrence levels because innovators are risk-preferrers who will undertake development anyway, the likelihood of non-punishment is negligible, and because each added use of a secret serves to benefit society.[279]

Minnesota has amended its provision on punitive damages to allow the court to award an amount of exemplary damages "in an amount which the court deems just and equitable."[280] It thus appears that Minnesota has removed the Act's limitation on punitive damages of twice actual damages and has given its judges additional discretion.[281] The large amount of discretion given to the Minnesota courts indicates either

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or "unjust enrichment caused by misappropriation." *See* Ark. Stat. Ann. § 70-1003 (Supp. 1985); La. Rev. Stat. Ann. § 51:1433 (West Supp. 1986).

[275] Those comments state that the award of attorney's fees is allowed as a deterrent to, *inter alia,* willful and malicious misappropriations. With respect to willful and malicious misappropriations, the court is to consider the extent to which a complainant "will recover exemplary damages in determining whether additional attorney's fees should be awarded."

[276] In other words, if Arkansas and Louisiana do allow punitive damages, will such damages be limited to not more than twice the award of actual losses and unjust enrichment? *Compare* Uniform Trade Secrets Act § 3(b) (1979) *with* Ark. Stat. Ann. § 70-1003 (Supp. 1985) *and* La. Rev. Stat. Ann. § 51:1433 (West Supp. 1986).

[277] No cases have yet addressed the issue.

[278] The majority of the adopting states allow punitive damages if the misappropriation was willful and malicious, thus following § 3(b) of the Uniform Act. *See* Cal. Civ. Code § 3426.3(c) (West Supp. 1985); Conn. Gen. Stat. Ann. § 35-53(b) (West Supp. 1985); Del. Code Ann. tit. 6, § 2003(b) (Supp. 1984); Idaho Code § 48-803(2) (Supp. 1985); Ind. Code Ann. § 24-2-3-4(c) (West Supp. 1985); Kansas Stat. Ann. § 60-3322(b) (1983); Minn. Stat. Ann. § 325C.03(b) (West 1981); 1985 Mont. Laws ch. 104, § 4(2); N.D. Cent. Code § 47-25.1-03(2) (Supp. 1983); Wash. Rev. Code Ann. § 19.108.030 (West Supp. 1985).

[279] *See supra* text accompanying notes 234-63; *cf.* Letter of July 12, 1979, from Ben Miller, Asst. Attorney General of Louisiana, to Lindsey Cowen, Dean of Case Western Reserve Law School (suggesting that the provision on punitive damages be bracketed to indicate that the propriety of punitive damages is a matter of public policy for each state).

[280] Minn. Stat. Ann. § 325C.03(b) (West 1981).

[281] *See id.*

legislative confidence in the courts' ability to adequately weigh the competing interests or a reluctance to make general conclusions about the probability of non-punishment and innovators' reactions to uncertainty.[282]

The Uniform Act represents a sensible compromise between the Minnesota and the Arkansas/Louisiana approaches. The Act grants discretion to the court within the bounds of treble damages; this rule seems to reflect both a confidence in the courts' ability to achieve optimum results by weighing the interests and the conclusion that treble damages set the upper bounds for the amount of optimal sanctions.[283] The Uniform Act's balance between flexibility and rigidity seems preferable because it allows the courts to fashion relief in response to the myriad of factual situations presented by trade secret cases and avoids making unnecessarily rigid conclusions about the likelihood of non-punishment and innovators' reactions to uncertainty.

D. Displacement of Other Laws

The displacement of other theories of recovery for trade secret misappropriation is a key element of the Act.[284] Because several different theories of recovery were previously available,[285] confusion regarding various and sometimes conflicting remedies existed.[286] The Act seeks to avoid this problem by presenting a single, unified theory of recovery: misappropriation.[287]

1. Problems

The Act purports to displace "conflicting tort, restitutionary, and other laws of this State pertaining to civil liability" for trade secret misappropriation.[288] This section also states that "contractual or other civil liability or relief that is not based upon misappropriation of a trade

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[282] *See supra* text accompanying notes 234-63.

[283] *Compare* Uniform Trade Secrets Act § 3(b) (1979) *with* Minn. Stat. Ann. § 325C.03(b) (West 1981) *and* Ark. Stat. Ann. § 70-1003 (Supp. 1985) *and* La. Rev. Stat. Ann. § 51:1433 (West Supp. 1986).

[284] *See* Unif. Trade Secrets Act, 14 U.L.A. 538 (Prefatory Note) (1980).

[285] *See, e.g., id.*

[286] *See, e.g.*, Klitzke, *supra* note 8, at 306-09 (1980); M. Jager, *supra* note 1, at § 4.01, 4-1 to -16.

[287] *See* Unif. Trade Secrets Act, 14 U.L.A. 538 (Prefatory Note) (1980).

[288] Uniform Trade Secrets Act § 7(a) (1979).

secret," as well as criminal liability[289] for such misappropriation, is not affected by the Act.[290]

"Conflicting" seems subject to different interpretations.[291] Taken literally, the Act would displace only those legal duties which "conflict" with the Act. A "conflict" would seem to exist whenever the pre-existing law provided remedies at odds with those allowed by the Act.[292] Suppose a trade secret owner sues a misappropriator, basing his claim for injunctive and monetary relief on 1) misappropriation under the Act, 2) quasi-contract, and 3) conversion of documents containing the secret. If the statute of limitations for quasi-contract actions is four years, a potential conflict exists because the Act's statute of limitations is three years.[293] If the suit is brought after three years, the conflict becomes actual, and the quasi-contract claim is displaced.[294] The conversion theory, however, remains effective under a literal reading of "conflicting" because it does not conflict with remedies allowed by the Act. The Act allows for the recovery of damages caused by the misappropriation; the conversion claim offers equivalent relief.[295]

A literal reading of "conflicting" thus leaves intact theories of recovery previously available at common law.[296] Most of these theories are

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[289] Several states have enacted statutes which criminalize the "theft" of trade secrets. *See, e.g.,* M. Jager, *supra* note 1, at Appendix F, F-1 to -2 (listing such statutes). This article deals only with the impact of the Uniform Act on civil remedies and therefore does not consider the Act's relationship to the criminal statutes.

[290] Uniform Trade Secrets Act § 7(a) (1979). The original section states:

> (a) This Act displaces conflicting tort, restitutionary, and other law of this State pertaining to civil liability for misappropriation of a trade secret.
>
> (b) This Act does not affect:
>
> (1) contractual or other civil liability or relief that is not based upon misappropriation of a trade secret; or
>
> (2) criminal liability for misappropriation of a trade secret.

Id.; see also 3 R. Milgrim, *supra* note 13, at Appendix A, A-15, nn. 24 & 25 (discussing the Act's preservation of the dichotomy between tort and contract and the potential problems caused by the exclusion of implied-in-fact contracts from displacement).

[291] *See infra* text accompanying notes 292-306.

[292] *See* Uniform Trade Secrets Act § 7(a) (1979).

[293] The two theories potentially conflict because one statute of limitations implies no recovery is appropriate, while the other would allow recovery.

[294] The quasi-contract claim is displaced as "conflicting" because its allowance of a remedy runs contrary to the provisions of the Uniform Act. *See* Uniform Trade Secrets Act § 7(a) (1979).

[295] *Compare id.* § 2(c) *with* D. Dobbs, Handbook of the Law of Remedies § 5.14 (1973).

[296] Because the Uniform Act codifies existing theories of recovery, many of the preexisting laws are largely consistent with, not contrary to, the Act's provisions.

duplicative of the remedies allowed by the Act.[297] The result of such an interpretation seems untenable, as it implies that the Act merely provides one more theory of recovery in addition to those already existing at common law.

The purpose of the Uniform Act, however, was to systematize and unify the policies underlying the common law theories of recovery used to impose legal duties in order to protect competitively significant information.[298] The Act responds to the uneven development of, and the uncertainty surrounding, the common law theories of recovery.[299] The displacement of other theories of recovery reflects the Commissioners' intent to unify and bring uniformity to the state laws used to protect competitively significant information.[300] In light of the policies behind the displacement provision, a better construction of "conflicting" is that it refers to other laws that impose legal duties in order to protect competitively significant information.[301] This interpretation thus focuses on the *use* of the other theories; if the pre-existing laws are used to protect trade secrets, then the laws are duplicative and are displaced by the Act.[302]

Returning to the prior example of a suit based on 1) misappropriation, 2) quasi-contract, and 3) conversion, *both* of the latter two theories are displaced with the use-based construction of "conflicting." The quasi-contract theory involves the imposition of legal duties and the recovery of damages; since the Act imposes duties to protect secrets and allows the recovery of damages, the quasi-contract theory is displaced.[303]

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[297] *See, e.g.*, Root & Blynn, *Abandonment of Common-Law Principles: The North Carolina Trade Secrets Protection Act*, 18 Wake Forest L. Rev. 823, 828 (1982).

[298] *See* Unif. Trade Secrets Act, 14 U.L.A. 538 (Prefatory Note) (1980).

[299] *See id.* at 537-38.

[300] *See id.*

[301] *See id.* at 537-38 & 550.

[302] *See id.* at 550 (stating that the Act "applies to duties imposed by law in order to protect competitively significant information").

[303] *See id.* at § 7(a) & 550. The court, from its reading of the complaint, should determine if the other theories result in the protection of competitively significant information through the imposition of legal duties. Claiming trade secret status for the information indicates that the information is competitively significant and implies that the lawsuit is an attempt to protect the information. The absence of a claim of trade secret status, however, should not preclude the court from determining whether the theories of recovery other than misappropriation are being used in an attempt to protect competitively significant information. Another "yardstick" which might be useful is the similarity of the remedies sought to those provided by the Act; such similarity indicates that the theories represent an attempt to protect competitively significant informa-

Similarly, the Act displaces the conversion claim because this latter theory also has the effect of protecting trade secrets through the imposition of legal duties.[304]

Of the two interpretations discussed, the latter represents the better view because it displaces duplicative theories of recovery.[305] It seems apparent that the Act attempts to unify the preexisting theories into one set of rules for a single cause of action: misappropriation.[306] Were it otherwise, the Act would represent merely one more potential basis of recovery in addition to the preexisting theories of recovery. Such a result clearly runs counter to the Act's goals of presenting a unified, and uniform, basis of protection for competitively significant information.

The remainder of this section of the article examines the question of whether contractual duties are "other law" displaced by the Act.[307] Although neither the Act nor the comments explicitly define "contract law,"[308] it appears that the intent was to equate "contract law" with "duties voluntarily assumed through an express or implied-in-fact contract."[309] The comments indicate that the term "contract law" refers to the voluntary assumption of duties with regard to competitively significant information, primarily (but not exclusively) covenants not to disclose secrets and covenants not to compete that are intended to protect trade secrets.[310]

Contract law, especially covenants not to compete and not to disclose confidential information, might be displaced by the Act because such contractual duties certainly seem to "pertain to" liability for misappropriation in a great many cases.[311] Although the comments to this sec-

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tion. *Cf., e.g.*, Harper & Row Publishers, Inc. v. Nation Enterprises, 723 F.2d 195, 200 (2d Cir. 1983), *rev'd on other grounds*, 105 S.Ct. 2218 (1985) ("equivalent element" test used to determine if state laws were preempted by the 1976 Copyright Act).

[304] The conversion claim allows the court to award damages; this remedy is allowed by the Act.

[305] *See supra* text accompanying notes 298-304.

[306] *See* Unif. Trade Secrets Act, 14 U.L.A. 537-38 & 550 (Prefatory Note & comments to § 7) (1980).

[307] *See infra* text accompanying notes 308-50.

[308] *See* Uniform Trade Secrets Act § 7 (1979); *id.*, 14 U.L.A. 550 (comments to § 7) (1980).

[309] *See* Unif. Trade Secrets Act, 14 U.L.A. 550 (comments to § 7) (stating that the Act "does not apply to duties voluntarily assumed through an express or implied-in-fact contract.") (1980).

[310] *See id.*

[311] *See* W. LaFuze, *supra* note 106, at 8.

tion point out the intent to leave contract law unaffected,[312] the terms of the Act could be interpreted to the contrary.[313]

2. Resolutions

a. Changes by the States

Several states have provisions that vary from the terms of the original Act, but it seems that only Indiana's change is sufficiently clear to avoid further problems.[314] The Indiana section provides that this "chapter displaces all conflicting law of this state pertaining to the misappropriation of trade secrets, except contract law and criminal law."[315] Indiana thus expressly provides that contractual obligations are not displaced by the Act.[316]

California's provision is somewhat different; it states that the Act "does not affect (1) contractual remedies, whether or not based upon misappropriation of a trade secret, (2) other civil remedies that are not based upon misappropriation of a trade secret, or (3) criminal remedies. . . ."[317] California thus retains the contract law on trade secrets and confidential information and thereby resolves the main problem of the treatment of contractual obligations.[318]

The California approach[319] is deficient, however, because it lacks an affirmative statement of what law *is* displaced by the Act; it merely states what law is not displaced.[320] Thus, for all that appears, the California approach may displace none of the tort or other theories previously used to protect confidential information and trade secrets;[321] any such displacement must be inferred from the Act's provisions.[322] Another problem with California's provision is that the first subsection provides: "Except as otherwise expressly provided, this title does not supercede any statute relating to misappropriation of a trade secret, or any other

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[312] Unif. Trade Secrets Act, 14 U.L.A. 550 (comments to § 7) (1980).

[313] W. LaFuze, *supra* note 106, at 8-9; *see* Uniform Trade Secrets Act § 7 (1979); ABA Patent, Trademark, & Copyright Section Resolution 206-3, approved Aug. 8, 1981, *reprinted in* W. LaFuze, *supra* note 106, at 21.

[314] *See infra* text accompanying notes 315-29.

[315] Ind. Code Ann. § 24-2-3-1(c) (West Supp. 1985).

[316] *See id.*

[317] Cal. Civ. Code § 3426.7(b) (West Supp. 1985).

[318] *See id.*

[319] *See id.*

[320] *See id.* § 3426.7(a) & (b).

[321] *See id.*

[322] *See id.*

statute otherwise regulating trade secrets."[323] This phrase presents a problem of interpretation because there are no other express provisions on the displacement of statutory law in the California Act,[324] thus making the reference to other statutes unclear.[325]

Connecticut takes a third track; it includes a phrase allowing the parties to opt out of the Act's displacement of other laws: *"Unless otherwise agreed by the parties,* the provisions to this chapter supercede any conflicting tort, restitutionary, or other law of this state pertaining to civil liability for misappropriation of a trade secret."[326] The leading phrase implies that parties may contract to *retain* conflicting tort laws pertaining to trade secret misappropriation and to have those laws apply to their situation.[327] This provision thus seems to lead to a curious result: the possible displacement of contractual liability as "other law" pertaining to civil liability for misappropriation in some cases, while the parties in other cases may contract to have the common law of trade secrets apply instead of the Uniform Act.[328] This result compounds the problem with the Act's original statement of just what law is displaced.[329]

b. Changes by Amendment

The Commissioners' Amendment to section seven recasts both the affirmative and negative descriptions of the law affected by the Act.[330] The new section provides that conflicting law "providing civil remedies for misappropriation of a trade secret" is displaced,[331] with the exceptions of "1) contractual remedies, whether or not based upon misappropriation of a trade secret; 2) other civil remedies that are not based upon misappropriation of a trade secret; [and] 3) criminal remedies, whether or not based upon misappropriation of a trade secret."[332] This amendment clarifies the status of contract law under the Act; covenants not to compete and covenants not to disclose confidential information re-

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[323] *Id.* § 3426.7(a).

[324] *See* Cal. Civ. Code §§ 3426-3426.10 (West Supp. 1985).

[325] *See id.* § 3426.7(a).

[326] Conn. Gen. Stat. Ann. § 35-57(a) (West Supp. 1985).

[327] *See id.*

[328] *See id.*

[329] Except for the initial phrases regarding agreements by the parties, the Connecticut version is the same as the Act's original version. *Compare* Conn. Gen. Stat. Ann. § 35-57 (West Supp. 1985) *with* Uniform Trade Secrets Act § 7 (1979).

[330] *See infra* text accompanying notes 331-35.

[331] Uniform Trade Secrets Act with 1985 Amendments § 7(a) (1985).

[332] *Id.* § 7(b)(1).

main enforceable.[333] Furthermore, this approach retains the affirmative statement of the displacement of civil remedies for trade secret misappropriation besides contract law.[334] In addition, this amendment does not allow the parties to opt out of the application of the Uniform Act as does Connecticut's corresponding provision.[335]

3. Uniformity

If courts apply the literal meaning of "conflicting," the goal of uniformity will be rendered unattainable.[336] A literal reading will result in the retention of the various common law theories of recovery, even though retaining these theories duplicates the remedies allowed by the Act.[337] The better construction refers to the goals of the Act and the purposes of the displacement provision. Reference to these policies implies that the common law rules imposing duties to protect competitively significant information are "conflicting" law because they duplicate the protection afforded by the Uniform Act.[338] The latter interpretation will help in ensuring the uniformity of trade secret laws.[339]

With respect to the possible displacement of contract law, it is too early to tell how much uniformity has been sacrificed by the adoption of the various versions of the Act's displacement section.[340] Although the various versions have the potential for fairly disparate results,[341] judicial construction may recapture the lost uniformity.[342] In the states which have adopted the Act's original provision, the courts should construe the section in light of the comments' direction that contractual obligations should not be displaced.[343] In addition, courts in those states could further ensure uniformity by equating the phrase "other law of this state pertaining to" trade secret misappropriation with the phrase "law providing civil remedies" for misappropriation; the latter phrase is that

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[333] *See id.* § 7(a) & (b).

[334] *See id.* § 7(a); *cf.* Cal. Civ. Code § 3426.7 (West Supp. 1985) (no affirmative statement of what laws are displaced by the California Act).

[335] *See* Uniform Trade Secrets Act with 1985 Amendments § 7 (1985); *cf.* Conn. Gen. Stat. Ann. § 35-57(a) (West Supp. 1985) (displacement of other laws unless otherwise agreed by the parties).

[336] *See supra* text accompanying notes 291-306.

[337] *See supra* text accompanying notes 291-306.

[338] *See supra* text accompanying notes 298-306.

[339] *See supra* text accompanying notes 305-06.

[340] No cases have reached the issue of displacement of contract law by the Act.

[341] *See supra* text accompanying notes 314-35.

[342] *See infra* text accompanying notes 343-48.

[343] *See* W. LaFuze, *supra* note 106, at 9-10.

used in the amended section.[344] It appears that the two phrases were intended to have the same result and to effectuate the same goal of displacing the various pre-existing theories of recovery.[345]

The modifications of Indiana and California appear to be easily reconciled with the terms of the amended section; both expressly retain contract law.[346] Connecticut's provision could also achieve uniform results if the initial phrase of the section is read to mean that contractual obligations are not displaced by the Act and the parties may enforce their contractual duties.[347] The Connecticut section, however, also should be construed to displace conflicting laws if there are no contractual obligations involved in a given case.[348]

Because these varying provisions can be interpreted to achieve uniformity,[349] it thus appears that the policy of uniformity remains attainable. In order to attain uniformity of application, the state courts must construe the various provisions to effectuate the Act's goal of uniformity.[350]

E. Continuing Misappropriations

Because the use of a misappropriated secret constitutes a misappropriation,[351] each use of another's secret could amount to a separate and

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[344] *Compare* Uniform Trade Secrets Act § 7(a) (1979) *with* Uniform Trade Secrets Act with 1985 Amendments § 7(a) (1985) ("other law providing civil remedies"). The use of this construction helps ensure that the law of the states with the original version would be the same, at least in practical effect, as the law of the states which may enact the amended version sometime in the future. Because the amended version offers more clarity on the continuing vitality of contract law, it should be the version enacted in the future. *See supra* text accompanying notes 330-35.

[345] *See* Uniform Trade Secrets Act § 7 (1979); Uniform Trade Secrets Act with 1985 Amendments § 7 (1985). No substantive changes in the comments to § 7 were made, thus implying that no substantive changes in the Act's content were intended. *See* Uniform Trade Secrets Act with 1985 Amendments at 16-17 (amended comments to § 7) (1985).

[346] *See* Cal. Civ. Code § 3426.7(b) (West Supp. 1985); Ind. Code Ann. § 24-2-3-1(c) (West Supp. 1985); Uniform Trade Secrets Act with 1985 Amendments § 7 (1985).

[347] *See* Conn. Gen. Stat. Ann. § 35-57(a) (West Supp. 1985); Uniform Trade Secrets Act with 1985 Amendments § 7 (1985).

[348] The Connecticut provision should not be read to allow the parties to agree to retain prior common law. Such a construction might lead to litigation regarding the scope of the "preexisting " common law and, thus, the continued existence of two bodies of law on the same subject, a result contrary to the intent of the displacement provision. *Compare* Conn. Gen. Stat. Ann. § 35-57(a) (West Supp. 1985) *with* Uniform Trade Secrets Act with 1985 Amendments § 7 (1985).

[349] *See supra* text accompanying notes 343-48.

[350] *See id.*

[351] *See, e.g.,* Uniform Trade Secrets Act § 1(2)(ii) (1979).

independent claim.[352] Since misappropriated secrets sometimes were used every day over an extended period of time, courts faced the problem of choosing when the statute of limitations began to run.[353] Two approaches developed; first, some courts viewed each use as an independent misappropriation and thus applied a different statute of limitations to each improper use.[354] The second approach was to treat the improper uses as constituting a single cause of action for misappropriation, thus requiring the application of only one statute of limitations to the improper use of the secret.[355]

The Act adopts the view that a continuing misappropriation constitutes a single claim.[356] Section six of the Act requires that suits brought under the Uniform Act must be filed within three years after the misappropriation is or, by exercise of reasonable diligence, should have been, discovered.[357] The Act thereby presents a single, unified statute of limitations for a misappropriation.[358]

1. Problems

Section eleven of the Uniform Act provides that the Act does not apply to misappropriations that occur prior to the effective date of the Act.[359] Because a continuing misappropriation constitutes a single claim under the Act,[360] it is conceivable that a continuing misappropriation may occur both before and after the effective date of the Act.[361] Returning to the garbage truck hypothetical, suppose that We Buildem begins us-

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[352] *See, e.g., id.*

[353] Suppose that a secret chemical process was misappropriated and used by the misappropriator each day over a three-year span. Does the statute of limitations begin to run on: the date acquisition occurs, the date of defendant's first use, or the date of plaintiff's discovery of the misappropriation?

[354] *E.g.,* Underwater Storage, Inc. v. U.S. Rubber Co., 371 F.2d 950 (D.C. Cir. 1966), *cert. denied,* 386 U.S. 911 (1967).

[355] *E.g.,* Monolith Portland Midwest Co. v. Kaiser Aluminum & Chemical Corp., 407 F.2d 288 (9th Cir. 1969); *cf.* Shatterproof Glass Corp. v. Guardian Glass Co., 322 F. Supp. 854, 869, (E.D. Mich. 1975), *aff'd,* 462 F.2d 1115 (6th Cir.), *cert. denied,* 409 U.S. 1039 (1972) (statute of limitations begins to run when the owner of the secret has knowledge of the misappropriation).

[356] Uniform Trade Secrets Act § 6 (1979) ("a continuing misappropriation constitutes a single claim" for purposes of the statute of limitations); *see* Klitzke, *supra* note 8, at 306-09 (1980).

[357] Uniform Trade Secrets Act § 6 (1979).

[358] *See id.;* Klitzke, *supra* note 8, at 306-09.

[359] Uniform Trade Secrets Act § 11 (1979).

[360] *Id.* § 6.

[361] *See* 3 R. Milgrim, *supra* note 13, at Appendix A, A-14, n. 23; W. LaFuze, *supra* note 106, at 8.

ing More Garbage's secret in Fargo, North Dakota, on May 20, 1983. The Act's effective date in North Dakota was July 1, 1983.[362] If We Buildem continues to use the secret after July 1, the misappropriation occurs both before and after the Act's effective date. The Act, however, does not deal with the question of how a continuing misappropriation occurring both before and after the effective date of the act should be treated.[363] Both the original section and the Commissioners' original comments are silent on this point.[364]

2. Resolutions

a. Changes by the States

Two states, Kansas and Washington, codified the original section eleven of the Act.[365] The question thus remains open in these states as to whether the Act applies to misappropriations which occur both before and after the effective date of the Act.[366]

California and Indiana resolve this problem by providing in substantially identical language that:

> If a continuing misappropriation otherwise covered by this [Act] began before [the effective date of the Act], the [Act] does not apply to the part of the misappropriation that occurred before that date. [The Act] does apply to the part [of the misappropriation] that occurs [after that date], unless the appropriation was not a misappropriation under the law displaced by this [Act]."[367]

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[362] 1983 N.D. Sess. Laws 1541.

[363] *See* Uniform Trade Secrets Act § 11 (1979); 3 R. Milgrim, *supra* note 13, at Appendix A, A-14, n. 23; ABA Patent, Trademark, & Copyright Section Resolution 206-6, approved Aug. 8, 1981, *reprinted in* W. LaFuze, *supra* note 106, at 21.

Note that the passage of three years (the length of the statute of limitations) resolves this problem by cutting off potential claims for misappropriations that begin before the Act's effective date. *See, e.g.*, 1981 Ark. Acts 859-60 (Arkansas Act took effect on March 12, 1981); 1980 Minn. Laws 1105 (Minnesota Act took effect on August 1, 1980). Although this problem goes away after three years, it may affect cases arising during that time and should therefore be considered by legislators contemplating enacting the Uniform Act.

[364] *See* Uniform Trade Secrets Act § 11 (1979); *id.*, 14 U.L.A. 549 (comments to § 6) (1980).

[365] *See* Kansas Stat. Ann. § 60-3330 (1983); Wash. Rev. Code Ann. § 19.108.930 (West Supp. 1985). Three other states adopted the same position as the Uniform Act when enacting their respective acts, but did not codify the provision. *See* 63 Del. Laws 478 (1982); 1980 Minn. Laws 1105; 1983 N.D. Sess. Laws 1541.

[366] *See supra* text accompanying notes 360-64; 63 Del. Laws 478 (1982); Kansas Stat. Ann. § 60-3330 (1983); 1980 Minn. Laws 1105; 1983 N.D. Sess. Laws 1541; Wash. Rev. Code Ann. § 19.108.930 (West Supp. 1985).

[367] Cal. Civ. Code § 3426.10 (West Supp. 1985); Ind. Code. Ann. § 24-2-3-8 (West Supp. 1985).

Both California and Indiana apply the Act to continuing misappropriations that continue after the Act's effective date to that part of the misappropriation occurring after the Act's effective date.[368] Thus, once the Act becomes effective, its provisions apply in suits commenced after that date.[369] This approach thus creates a potential for the application of two sets of rules to what is basically one misappropriation; the court is to apply the preexisting common law to the part of the misappropriation occurring before the Act's effective date, while the Act's provisions apply to the misappropriation occurring on and after the Act becomes effective.[370] The California/Indiana approach seems needlessly complex in applying two different and potentially conflicting sets of rules in the same case, especially in states with a fairly well-developed body of trade secrets law.[371] For states with little or no trade secrets law, however, the California/Indiana approach may represent a useful solution. Because the Uniform Act codifies and restates the common law, the courts in a state with little case law could apply the Act, as common law, to that part of the misappropriation occurring before the Act's effective date.[372] In this way, the Act might be applied to the entire case.

b. Changes by Amendment

The Commissioners' amended section eleven reads: "This Act takes effect on _____, and does not apply to misappropriations occurring prior to the effective date. With respect to a continuing misappropriation that began prior to the effective date, the Act also does *not* apply to the misappropriation that occurs after the Act's effective date."[373] Referring to the garbage truck hypothetical once more, had North Dakota adopted the amended section, no part of We Buildem's misappropriation would be covered by the Act because the use of More Garbage's secret began before the effective date of the Act.[374] Note that this section does not necessarily prevent courts from applying the Act as the common law.[375]

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[368] Cal. Civ. Code § 3426.10 (West Supp. 1985); Ind. Code Ann. § 24-2-3-8 (West Supp. 1985).

[369] *See* Cal. Civ. Code § 3426.10 (West Supp. 1985); Ind. Code Ann. § 24-2-3-8 (West Supp. 1985).

[370] *See* Cal. Civ. Code § 3426.10 (West Supp. 1985); Ind. Code Ann § 24-2-3-8 (West Supp. 1985).

[371] The more cases reported within a jurisdiction, the greater the likelihood that one or more provisions of the Act will conflict with the preexisting common law.

[372] *Cf., e.g.,* Klitzke, *supra* note 8, at 282-84.

[373] Uniform Trade Secrets Act with 1985 Amendments § 11 (1985); *see also id.* at 17-18 (amended comments to amended § 11).

[374] *See id.*

[375] *See id.* The phrase "does not apply" arguably might prevent courts from applying the

3. Uniformity

The California/Indiana approach[376] appears, at first blush, to present a better alternative to the amended section because it applies the Act sooner and in more cases than would the amended section.[377] The amended section, however, seems to represent the better view because it avoids the potential problems of applying two sets of rules to a single case.[378] Instead, the Commissioners' amendment presents two mutually exclusive situations; either the Act controls the whole case or it does not apply at all, depending on when the misappropriation began.[379]

For the special case of rural states, however, the California/Indiana approach makes more sense. In such states the relevant law is usually unclear because of a dearth of authority.[380] By adopting the California/Indiana rule, the legislature minimizes the possibility of needless litigation about the applicable common law.[381] Such litigation seems especially wasteful because such issues will have been mooted by the adoption of the Act.[382] Also, because of the lack of authoritative decisions, conflicts between the prior law and the Act seem unlikely. Retroactive application of the Act, however, represents the best solution because it eliminates entirely the potential for useless litigation and serves to focus attention on the Act.

It seems inconceivable that a court would construe the amended section consistently with the California/Indiana rule because the plain language of the rules is so clearly contrary.[383] With regard to states

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Act as common law. The Commissioners, however, did not use "shall not apply;" the absence of the latter phrase implies that the application of the Act as common law is not contrary to the Commissioners' intent.

[376] *See supra* text accompanying notes 367-72.

[377] *Compare* Cal. Civ. Code § 3426.10 (West Supp. 1985) *and* Ind. Code Ann. § 24-2-3-8 (West Supp. 1985) *with* Uniform Trade Secrets Act with 1985 Amendments § 11 (1985).

[378] *See supra* text accompanying notes 370-72.

[379] *See* Uniform Trade Secrets Act with 1985 Amendments § 11 (1985).

[380] *E.g.*, Unif. Trade Secrets Act, 14 U.L.A. 537 (Prefatory Note) (1980); *see, e.g.*, Telex Corp. v. Int'l Business Machines Corp., 510 F.2d 894, 940 (10th Cir.), *cert. dismissed*, 423 U.S. 802 (1975).

[381] Applying the Act to those cases thus reduces the need for developing the prior common law because the Act may be applied as the common law to that part of the misappropriation occurring before the Act's effective date. *See* Uniform Trade Secrets Act § 11 (1985).

[382] *See, e.g.*, Uniform Trade Secrets Act with 1985 Amendments § 7 (displacing other state law providing civil remedies for trade secret misappropriation) (1985); *supra* text accompanying notes 288-313 & 330-35.

[383] *Compare* Cal. Civ. Code § 3426.10 (West Supp. 1985) *and* Ind. Code. Ann. § 24-2-3-8 (West Supp. 1985) *with* Uniform Trade Secrets Act with 1985 Amendments § 11 (1985).

which have adopted the Act's original version,[384] as well as those states which have not enacted the section,[385] it appears that either the California/Indiana rule or the amended section could be applied by the courts.[386] Although retroactive application of the Act presents the best solution, the second best choice is the Commissioners' amended section because it reduces the potential complexity of trade secrets cases by applying only one set of rules in a given case.

III. Conclusions

This article examined the Uniform Trade Secrets Act, some of the problems with the Act, and the changes made by the adopting states that have addressed those problems and the Commissioners' amendments regarding those problems. Because such changes have been made, the question arises: Is the Uniform Act uniform?

This question is best answered by the counter-question: How uniform is uniform? Certainly, the Uniform Act has not been enacted word-for-word in all of the adopting states. But the important question is really whether the *substance* of the Act remains uniform throughout the adopting states. The answer to this question is generally yes.

The substantive spirit of the Act appears to remain uniform, even after the adaptations, because in those states where the legislature did not address specific problems but instead adopted the Act verbatim, *the Uniform Act's language generally may be interpreted to resolve the problems uniformly.*[387] Certainly, in those states in which section eight[388] has been enacted,[389] the courts appear to be *directed* to apply and construe the Act so as to make uniform the law with respect to trade secrets.[390] In

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[384] *See* 63 Del. Laws 478 (1982); Kansas Stat. Ann. § 60-3330 (1983); 1980 Minn. Laws 1105; 1983 N.D. Sess. Laws 1541; Wash. Rev. Code Ann. § 19.108.930 (West Supp. 1985).

[385] *See* Ark. Stat. Ann. §§ 70-1001 to -1007 (Supp. 1985); Conn. Gen. Stat. Ann. §§ 35-50 to -58 (West Supp. 1985); Idaho Code §§ 48-801 to -807 (Supp. 1985); La. Rev. Stat. Ann. §§ 51:1431 to 1439 (West Supp. 1986); 1985 Mont. Laws ch. 104, §§ 1-10.

[386] *See, e.g.,* 3 R. Milgrim, *supra* note 13, at Appendix A, A-14, n. 23. The various provisions easily could be interpreted either way. *See supra* text accompanying notes 359-64.

[387] *See supra* text accompanying notes 168-72, 229-33, 264-83, 336-50, & 383-86.

[388] "This [Act] shall be applied and construed to effectuate its general purpose to make uniform the law with respect to the subject of the [Act] among the states enacting it." Uniform Trade Secrets Act § 8 (1979).

[389] Cal. Civ. Code § 3426.10 (West Supp. 1985); Conn. Gen. Stat. Ann. § 35-58 (West Supp. 1985); Del. Code Ann. tit. 6, § 2008 (Supp. 1984); Ind. Code Ann. § 24-2-3-1(b) (West Supp. 1985); Kansas Stat. Ann. § 60-3327 (1983); La. Rev. Stat. Ann. § 51:1438 (West Supp. 1986); 1985 Mont. Laws ch. 104, § 9; Wash. Rev. Code Ann. § 19.208.910 (West Supp. 1985).

[390] *See, e.g.,* Uniform Trade Secrets Act § 8 (1979).

the four states not adopting section eight,[391] the courts should be amenable to the proposition that the Uniform Act should be construed consistently with its purpose of bringing uniformity to the law of trade secrets.[392] Thus, although on its surface the Act seems to lack uniformity, its substantive content retains the potential for a high degree of uniformity.[393]

It seems premature to draw any final conclusions about the uniformity of the Act's substance. Because the original Act's provisions are susceptible to different interpretations, and because the courts have yet to rule on these issues, the legal community must await further decisions to see how the courts will handle the Uniform Act and to see the amount of uniformity that will be attained.

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[391] *See* Ark. Stat. Ann. §§ 70-1001 to -1007 (Supp. 1985); Idaho Code §§ 48-801 to -807 (Supp. 1985); Minn. Stat. Ann. §§ 325C.01 to .08 (West 1981); N.D. Cent. Code §§ 47-25.1-01 to -10 (Supp. 1983).

[392] *See, e.g.,* Uniform Trade Secrets Act, 14 U.L.A. 537-38 (in which the Prefatory Note details the need for uniformity of trade secret laws) (1980).

[393] *See supra* text accompanying notes 387-92.

THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT — SHOULD ITS JUDGES BE TECHNOLOGICALLY LITERATE OR ILLITERATE?

BY HOMER O. BLAIR*

Formation of the CAFC

On October 1, 1982 the U.S. Court of Appeals for the Federal Circuit (CAFC) came into being.[1]

The CAFC was created in an innovative way by combining the U.S. Court of Claims and the Court of Customs and Patent Appeals. This was particularly appropriate because both of these courts were housed in the same building and shared a common law library. The seven former judges of the Court of Claims and the five former judges of the Court of Customs and Patent Appeals were merely combined to make up the twelve judges of the CAFC.

The formation of this court has been called "the first significant change in the makeup of federal appeals court structure since the Evarts Act of 1891."[2]

Jurisdiction of the CAFC

The jurisdiction of the CAFC is quite broad and varied.[3] It includes

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[1] Pub. Law 97-164, 96 stat. 25 (sometimes referred to as the Federal Courts Improvement Act of 1982).

[2] Frank P. Cihlar, THE COURT AMERICAN BUSINESS WANTED AND GOT: THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, National Chamber Foundation, Washington, D.C., 1982.

[3] *See* n. 1 *supra.*

appeals from the wide variety of cases handled by the new U.S. Claims Court, appeals from the Merit System Protection Board, the U.S. International Trade Commission, the U.S. Court of International Trade, the Secretary of Commerce (certain tariff schedules) and the U.S. Patent and Trademark Office. Unobvious cases included in this jurisdiction are claims of the various Indian tribes against the U.S. Government and appeals in the air controllers cases.

The most significant new area of jurisdiction is the CAFC's exclusive jurisdiction over appeals in patent infringement cases brought in any of the federal district courts.

Appeals in patent matters from all sources are a minority of the total cases handled by the CAFC.[4] However, they take up over 50% of the time of the judges.[5]

The CAFC is unique in that it has a staff of technically trained people to assist them in their work. Many of the judges hire their two clerks from among young lawyers having a technical background.[6] However, of the twelve judges, only three were very experienced in technology-legal issues before being appointed to the court.[7] One has an excellent background in trademark law.[8]

The court was set up, in part, to make decisions in patent law uniform throughout the entire nation so that there would not be patents which were held valid by one circuit and invalid by another circuit. The court has made exemplary progress toward this goal.[9]

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[4] One estimate is about one third of the total cases handled by the CAFC are patent cases. Federal Circuit Patent Law Decisions, Fed. Prac. & Proc. Comm., AIPLA 1986. Last year's (1985?) CAFC cases docketed consisted of 1,797 appeals from the Merit Systems Protection Board, 307 patent cases, 28 trademark cases, and 317 other cases. CAFC Judge Pauline Newman Interview, 6 IPO News 2 (1986), Intellectual Property Owners, Washington, D.C. [hereinafter cited as "Newman"]. This results in 12.5% of the total CAFC cases being patent cases.

[5] *Id.* Newman.

[6] While this is a helpful, and possibly necessary, practice, are the opinions of the technologically trained clerks and staff given too much weight by the judges with no technological background?

[7] Chief Judge Howard Markey, Judges Giles Rich and Pauline Newman.

[8] Judge Helen Nies.

[9] "[T]he Federal Circuit has made substantial progress in unifying the decisional law of patents in several substantive areas." *See* n. 4, *supra* (AIPLA) at p. 254. "I believe that the first three years of the Federal Circuit have been a plus for the patent system." Paul J. Luckern, editorial in *The United States Court of Appeals for the Federal Circuit — Its First Three Years,* 13 AIPLA Q. J. 168 (1985). "[M]y own observation is that the (CAFC) has scored reasonably well on everybody's scorecard and exceptionally well on the scorecards of most of the court watchers in the patent bar." Donald R. Dunner, 13 AIPLA Q. J. 185 (1985).

Technological Legal Issues

With over 50% of the court's time being spent on patent cases it would seem logical that a significant number of the judges should have some background and experience which would assist then in deciding cases in this category.

In my opinion, which is based on over thirty years of experience as a patent, trademark, and technology transfer lawyer, patent law is no more difficult to learn or understand than any other field of law. The problem with patent cases is not the law, it is the technology upon which the patent is based and the application of the law to that technology.

A court is faced with a very difficult task in deciding, in many cases, whether an invention, which might involve organic chemistry molecules, electronic computer circuits, etc., was "obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."[10]

Thus, a judge must put him or herself in a position of a person skilled in the art of chemistry, electronics or whatever, and decide whether the invention was obvious to such a skilled chemist or a skilled electronics engineer many years ago when the invention was made. This is a very difficult task, particularly without a technical background.

The task is even more difficult for an appellate court which must operate on briefs, the record of the court or administrative body below and a few minutes of oral argument, without the benefit of a trial and the education it provides over a period of time in the technology involved.

Two Representative Patents

Let us look into this problem in more detail. The vast majority of lawyers have never even seen a patent. This is also true of the vast majority of judges unless and until they are called upon to preside over a trial involving patent validity and/or infringement.

For example, let us look at two typical patents which are assigned to Itek Corporation of Lexington, Massachusetts, one of my former employers. The first patent is U.S. #4,090,975, issued May 23, 1978 to three inventors: Ralph E. Aldrich, William J. Cumming and William A. Simmons, Jr. It is not an unduly complex patent and comprises four pages of drawings, with a total of seven figures, and six pages of text, each page comprising two columns of approximately 70 lines each.

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[10] 35 U.S.C.103.

The patent relates to a particular liquid crystal mixture which may be used in display devices. For example, the numbers appearing on digital watches are composed of liquid crystals. The particular invention covered in this patent is a liquid crystal, having certain characteristics, which is a mixture of three materials. Claim 1 is as follows:

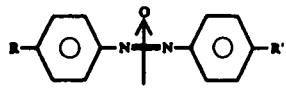
What is claimed is:

1. A liquid crystal composition having a freezing point of at most about −50° C and an isotropic transition point of at least about 80° C which, based upon 100% by weight, consists essentially of:

a. from about 10% to about 14% by weight of bis(4'-n-octyloxybenzal)-2-chloro-1,4-phenylenediamine;

b. from about 40% to about 60% by weight of a Schiff's base nematic liquid crystal compound selected from the group consisting of p-ethoxybenzylidene-p'-n-butylaniline and p-butoxybenzylidene-p'-n-butylaniline; and,

c. from about 35 to about 50% by weight of a mixture of nematic liquid crystal azoxy compounds represented by the structural formula



wherein one of R and R' is C_1-C_8 alkyl and the other of R and R' is C_1-C_8 alkoxy.

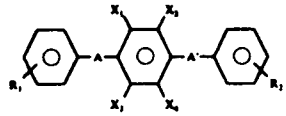
* * * * *

The abstract of this patent is set forth below:

ABSTRACT

Liquid crystal mixtures are disclosed which contain 30-60% of a Schiff's base nematic liquid crystal compound, 25-65% of a second nematic liquid crystal compound selected from the classes of azoxy, ester and biphenyl, and 5-15% of a triphenyl compound to raise the isotropic transition temperature. This combination results in liquid crystal compositions having unexpectedly wide nematic temperature ranges.

In columns 5 and 6 the patent discloses a number of triphenyl compounds which raise the isotropic transition temperature of the composition. Suitable compounds can be represented by the structural formula.



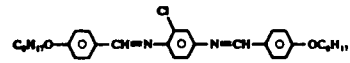
wherein:

A and A' are individually selected from —CH=N— and

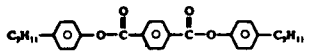
R_1 and R_2 are individually selected from C_1–C_9 alkyl, C_1–C_9 alkoxy, C_1–C_9 alkyl ester, nitrile, chlorine and bromine; and,

X_1, X_2, X_3 and X_4 are individually selected from hydrogen, nitrile, chlorine, bromine and at least two of X_1, X_2, X_3 and X_4 are hydrogen.

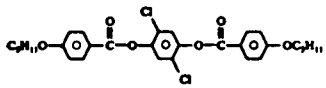
Some specific compounds which have been found to raise the isotropic transition temperature of liquid crystal compositions include:



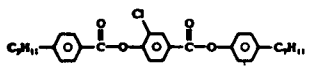
bis(4'-n-octyloxybenzal)-2-chloro-1,4-phenylenediamine



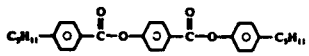
bis(p-pentylphenyl)terephthalate



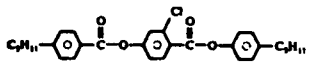
4-pentyloxy-2',5'-dichloro-4'(4"-pentyloxyphenylcarbonyloxy) phenyl benzoate



4-(4'-pentylphenylcarbonyloxy)-3-chloro-4"-pentylphenyl benzoate



4-pentylphenylcarbonyloxy-4"-pentylphenylbenzoate



The second patent, U.S. # 3,878,384, issued April 15, 1975 to John Kent Bowker. This patent relates to what is known as a general purpose designator which, in effect, is a type of information handling apparatus which, broadly speaking, is a type of computer. The patent includes five pages of abstracts and drawings, including seven figures, and seven pages of text material. Figure 4 is set forth below:

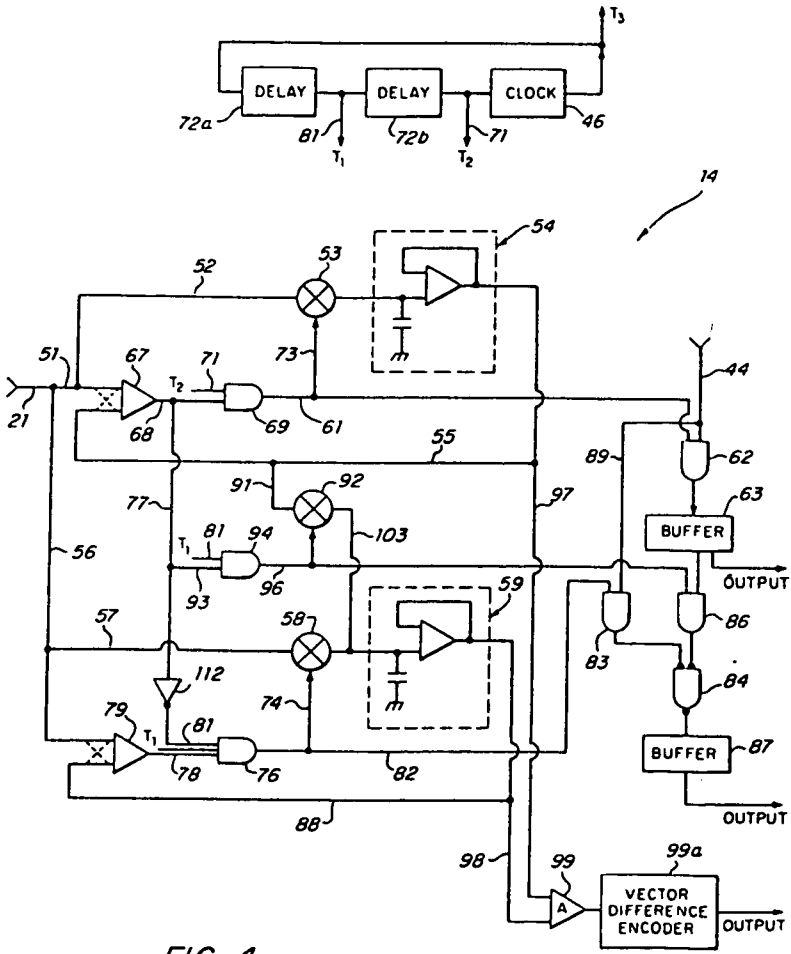


FIG. 4.

Claim 1 is as follows:

> What is claimed is:
> 1. Apparatus for designating the class to which an unknown event belongs among a plurality of possible classes of events, which classes differ from one another by the values of one or more of a plurality of selected properties thereof; said apparatus comprising:
> a. means for generating a first plurality of signals which identify the position of said unknown event as a function of its selected property values in a multidimensional coordinate system wherein each axis corresponds to a different one of said plurality of selected properties;
> b. means for generating a second plurality of signals which identify the position of each of said classes in said multidimensional coordinate system as a function of their values of said selected properties.;
> c. first comparing means for comparing said first plurality of signals with said second plurality of signals and for generating a third plurality of signals, each of which is proportional to the vector distance between the position of said unknown event and the position of a different one of said classes in said multidimensional coordinate system;
> d. second comparing means for comparing said third plurality of signals with one another for determining that third signal which is proportional to the shortest vector distance; and,
> e. means for identifying the particular class associated with the third signal proportional to the shortest vector distance for designating said unknown event into that particular class.

While these patents do not represent simple technology, neither are they any more complex than the approximately 1,500 U.S. patents issuing every Tuesday from the U.S. Patent and Trademark Office.

It has been said[11] that "trial judges are trained in law and rarely have a technical background."

Some might say it was unreasonable to expect a nontechnically oriented (technologically illiterate?) judge to be expected to make decisions on whether the above, and other, inventions are not patentable.

Judicial Comments on Technology and Law

Most lawyers become lawyers because they have no particular interest or aptitude in technology. If they had interest in or aptitude for science and technology, they probably would have become engineers or scientists. Thus, we are thrusting a person, who nearly always has no exposure to science or technology, into a position where that person must decide,

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[11] *Scientific Evidence and the Question of Judicial Capacity,* John W. Wesley 25 Wm. & Mary L. Rev. 675-703 at 685 (1984), *citing Ethyl Corp. v. Environmental Protection Agency,* 541 F.2d 1 (D.C. Cir. 1976), and quoting Bazelon, C.J., concurring, "substantive review of mathematical and scientific evidence by . . . technically illiterate judges is dangerously unreliable . . .," p. 67.

after hearing evidence on both sides, with technical experts on each side have diametrically opposite opinions, whether a particular invention was unpatentable under the law.

Consider the statement of the very experienced and capable Judge Friendly in *General Tire & Rubber Company v. Jefferson Chemical Company, Inc.*[12]

> This patent appeal is another illustration of the absurdity of requiring the decision of such cases to be made by judges whose knowledge of the relevant technology derives primarily, or even solely, from explanations by counsel[1] and who, unlike the judges of the Court (of Appeals for the Federal Circuit), do not have access to a scientifically knowledgeable staff.

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[1] We compliment appellant's counsel for the appendix to their brief entitled "Background Chemistry," which has not been controverted by appellee. Without the aid furnished by this, the writer, for one, would have been helpless. But such rudimentary education is no substitute for having lived for years with a subject and a way of thinking.

Another case of interest is that of *Capri Jewelry Inc. et. al. v. Hattie Carnegie Jewelry Enterprises, Ltd. et. al.*[13] Judge Friendly wrote for the Court of Appeals, Second Circuit, and discussed the rather unusual handling of this case by Judge William Conner of the Southern District of New York, who apparently is the only U.S. District Court Judge who was a patent attorney before his appointment to the court.

The patent owner had filed suit in the Southern District Court of New York on October 2, 1975. Defendant brought suit for a declaration that the patent was invalid or not infringed on October 8, 1975. The case was assigned to Judge Conner apparently on the morning of October 9, 1975. Counsel were served with a notice of a hearing before the judge at 2:00 P.M. on October 9. This hearing was adjourned until the morning of October 10 when the judge directed the alleged infringer to furnish the patent owner with specimens of the allegedly infringing product and instructed the patent owner to state his position with respect to infringement on October 14. The judge then set trial for October 23.

Prior to this trial, the judge studied the patent, the history of its prosecution in the U.S. Patent Office, and a prior art patent. The trial was started and completed on October 23 and counsel were directed to file briefs by 9:00 A.M. on October 28. The court then rendered its opinion that the patent was invalid, before 5:00 P.M. on October 28. Thus, a suit was filed, a trial was held, and a decision was rendered on a patent case in what must be record time of 26 days.

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[12] 182 U.S.P.Q. 70 (2d Cir. 1974).

[13] 191 U.S.P.Q. 11 (2d Cir. 1976).

Judge Friendly, in affirming that the patent was invalid, stated in his opinion.:

> [A]ppellant mounts a variety of attacks upon the speed with which the court decided the case. ...It probably is true that a judge less versed in patent law would have taken longer to reach a decision even on so clear a case as this. We agree that, except perhaps in cases of grave emergency, speed should not be a goal to be purchased at the cost of fairness. It was not so purchased here. ...When as here justice can be swift as well as sure, it attains its best. A court is fortunate to have a member who can understand and speak the arcane language of patent litigation as readily as ordinary English and can act, soundly and decisively, from a background of knowledge of patent law which most of us must tediously acquire, or reacquire, for each case.

Another relevant case is *Forbro Design Corp. v. Raytheon Co.*[14] This case involved a patent on an electronic power supply and District Judge Freedman made the following statements on p. 72:

> Before undertaking the task of determining the validity, vel non, of the highly technical patent in suit, the Court calls to mind the words of Mr. Justice Frankfurter in *Marconi v. United States*, 320 U.S. 1, 57 USPQ 471 (1943) (dissenting in part):
>
> > It is an old observation that the training of Anglo-American judges ill fits them to discharge the duties cast upon them by patent legislation. The scientific attainments of Lord Moulton are perhaps unique in the annals of the English-speaking judiciary. However, so long as the Congress, for the purposes of patentability, makes the determination of originality a judicial function, judges must overcome their scientific incompetence as best they can. (Footnote omitted.)
>
> I view this sentiment as particularly apposite in the case at bar.

One more judicial comment is found in the case of *Kaiser Industries, et al. v. Jones and Laughlin Steel Corp.*[15] Judge Rosenberg wrote a decision of some 80 printed pages as well as 446 unreported manuscript pages in an "Opinion Compendium." Judge Rosenberg stated (on pp. 251-2) that even in view of his own "sparse" knowledge of the chemistry and physics involved in the process, he was "enabled to acquire considerable technological education and insight into the scientific features not only in the ... patent, but also the prior art patents." Judge Rosenberg referred to the difficulties Judge Freeman had, in a previous district court decision on the same patent, with the masses of technological evidence and exhibits. Judge Rosenberg felt that the previous district court and the court of appeals was unaware of the significance of certain of the chemical technology (p. 265) and that the subject matter presented issues "so com-

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[14] 190 U.S.P.Q. (D.C. Mass. 1975).

[15] 181 U.S.P.Q. 193, (W. D. Pa. 1974).

plex that legal minds without appropriate grounding in science and technology had difficulty in reaching decision" (p. 271).[16]

Judge Markey's Comments

Chief Judge Howard Markey of the CAFC has not spoken publicly, to my knowledge, on the criteria to be used to select the judges on the CAFC. However, Judge Markey has written and spoken on some of the problems involved with the two disciplines of science and law. In a dialogue between The Spirit of Law and The Spirit of Science,[17] The Spirit of Science says "most court cases should not be decided solely on what (science says) and ... technological evidence must normally be but one element in the judicial matrix of decision, but there is no wisdom in total isolation of judges and lawyers from an increasingly technical world."

In another article[18] Judge Markey states, "In business, legislatures, schools, government agencies, and on the bench, decisions made within a narrow frame of reference by philosophically illiterate technologists and technologically illiterate lawyers lead to inconsistency and confusion in the affected institution" (p. 538). "An interdisciplinary approach is needed in which those planning a career in law would learn about science and scientists" (p. 538). "[T]he best hope for handling the interaction of science and law is the creation of a new generation of scientists and lawyers who understand and respect each other's role" (p. 538).

In this article Judge Markey proposes a number of "rules of technological adjudication" to "assist judges in integrating technology into the framework of transcendental legal values" (p. 543). Judge Markey's Rule V is, "The Court Shall Not Attempt to Decide 'Scientific Truth'" (p. 543).

Thus, Judge Markey feels that lawyers should learn more about science and scientists should learn more about law. I agree with his thesis. However, as Judge Markey well knows, there are a significant number of lawyers with technological degrees and, in many instances, significant technological experience. The large majority of these lawyers are patent lawyers as was Judge Markey himself before being appointed to the Court of Customs and Patent Appeals, now combined with the U.S. Court of Claims to form the CAFC. There is no question that, with a significant amount of time and effort, a judge can get a pretty good feel for technology in a certain case, particularly if he or she is a trial judge.

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[16] *Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation et al.*, 169 U.S.P.Q. 513 at 520 (USSC 1971).

[17] Chief Judge Howard T. Markey, *Science and Law: A Dialogue of Understanding*, 68 A.B.A.J. 154-158 (1982).

[18] Howard T. Markey, *Jurisprudence or "Juriscience"*, 25 Wm. & Mary L. Rev. 525-543 (1984).

However that judge is faced with the problem of having experts on both sides of the controversy attempt to educate him or her on their version of the technology when he or she is probably uncomfortable with technology.

Patent Lawyers on the CAFC

Some feel that judges on the CAFC should not be patent lawyers because patent lawyers are allegedly narrow specialists. Are these people concerned about judges knowing too much about a particular field? Yet in the medical field, these same people want the most expert specialist available when they have a medical problem.

Obviously, many people with technical/legal backgrounds would not make capable judges. This is true with many people without technical backgrounds. Many patent lawyers would not be good judges. Many law professors would not be good judges.

It would seem "obvious" however, that a person with a broad background and judicial temperament, who also had a technical background and years of experience in dealing with technology, would make a better judge than one who must stumble through different types of technology and not really be able to understand them.

It is a very difficult way to make a living for a person without an interest or background in technology to spend half of his or her time working on difficult technology issues, if that person is trying to do a conscientious job.

One could even go so far as to say there should be no objection if all the lawyers on the Court of Appeals for the Federal Circuit were technically trained lawyers with experience in technological /legal problems as long as they were good judges. Should lawyers with a technical background be discriminated against in selecting judges for this court, as arguably is the case today?

Obviously, any judge appointed to any court will not be familiar with the law in all fields of the court's jurisdiction. However, patent lawyers, are lawyers with the same education as other lawyers and with the same bar admissions as other lawyers.[19]

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[19] Except that patent lawyers must have a technical degree or equivalent and pass a special one-day examination before being admitted to practice in patent matters before the U.S. Patent and Trademark Office. As other lawyers cannot practice before the U.S. Patent and Trademark Office in patent matters, patent lawyers are the only lawyers who can practice before all U.S. government agencies. 37 CFR 1.341(c); 35 USC 31.

Nonpatent lawyers with appropriate legal capability can learn the law with which they are not familiar. So can patent lawyers. However, patent lawyers do not bear the burden of being technologically illiterate.

Some, who are not knowledgeable in the field, assume that patent lawyers might tend to find all patents valid and infringed, while nonpatent lawyers, being unbiased (and also unskilled in the field), would not.

These critics do not realize that there are patent lawyers on each side of every patent dispute, some arguing the patent is invalid and not infringed, and some arguing the patent is valid and infringed. Every experienced patent lawyer, whether corporate or private, has been on each side of a patent dispute many times.

A good patent lawyer will be able to recognize an invalid patent easier and faster than a nonpatent lawyer.[20]

The CAFC's record on validity/invalidity of patent claims is 50-50,[21] about where it should be.[22]

Corporate Patent Lawyers

About half the patent lawyers in the United States work for corporations. While what they do from day-to-day is quite different from what is done by private patent practitioners, the corporate lawyers frequently have as much or more experience in analyzing patent infringement and validity.

The corporate patent lawyer usually has a better understanding of the importance of technology and the patent law to the development of new products, and the strengths and weaknesses of patents and the patent system.

Judge Pauline Newman of the CAFC is the only corporate patent lawyer ever appointed to a federal court. In addition to her law degree and a Ph.D. in chemistry, Judge Newman was intimately involved for many years in evaluating the validity and invalidity of patents. One question, and its response, in her IPO interview,

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[20] *See* n. 13, *supra,* Judge William Connor's decision that a patent was invalid in record time in the *Capri Jewelry* case.

[21] Chief Judge Howard T. Markey, Second Annual Federal Circuit Judicial Conference, State of the Court, 104 F.R.D. 210-214 (1985). "Looking at affirmances and reversals of judgments, holding (patent) claims valid and invalid, the outcome was exactly 50/50."

[22] Patents that are clearly valid or invalid do not get to court. Only patents having a serious question on validity reach the trial stage.

[23] Newman, n. 4, *supra.*

> IPO: Your experience was as an in-house corporate counsel. Do you feel handicapped at the Court by lack of experience as a trial lawyer?
>
> NEWMAN: No. As an appellate court, trial tactics are seldom before us. I find my experience as house counsel to technology-based industry to be an invaluable asset to my work at the Court. As a user of the patent system I experienced daily its impact on research and investment decisions. I observed the practical aspects of not only the patent laws but also the other areas of our jurisdiction: international trade, trademarks, government contracts, and personnel. This background was tailor-made, I have found, to my work on the Court.[23]

Politics and Reality

Patent lawyers rarely get involved in politics. This is particularly true of corporate patent lawyers, who do not need to join organizations, make speeches, write articles, etc., in order to gain clients.[24] Corporate patent lawyers already have a client, their employer, who usually keeps them too busy to get involved in politics.

I am not naive enough to think that politics will no longer rule the day and that judges for the CAFC will always be selected on merit.

However, there is no reason why occasionally a judge should not be selected on merit for the tough job of being a judge on the CAFC. The Department of Justice and the White House really decide who should be appointed to the CAFC, which is a national court.[25] U.S. Senators do not have the influence that they have on other federal appellate courts.

Certainly I would not realistically expect any President to appoint people who did not have the same philosophy that he or she had. However, I know people with fine technological/legal backgrounds who are politically very conservative, and others who are very liberal. It would be no problem to find people of a philosophical background comparable to any President, who have a judicial temperament and are knowledgeable and comfortable with technological/legal issues, and who would make excellent judges for the CAFC.

Many of the judges on the court who do not have a technical background are very capable people, and would be very suitable if appointed to other appellate courts. However, wouldn't it make more sense to appoint lawyers with an affinity and interest in technology (technologically literate) to the CAFC and have the others (technologically illiterate) appointed to one of the other courts of appeal?

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[24] Don't misunderstand me. I am not criticizing lawyers who do this. They make a very legitimate contribution to their profession. I wish more lawyers would do the same.

[25] Unfortunately, based on some personal discussions, many, if not all, of those in the Department of Justice and the White House who make the decisions on CAFC appointments have never seen a patent.

Conclusion

While I do not think it is mandatory that a significant number of the judges be patent lawyers, if that is the largest group of lawyers with a technical background, there would seem to be no reason not to appoint patent lawyers to the court.

I believe the CAFC would be an even stronger court than it is now if a significant majority of the court were broadbased, widely-experienced patent lawyers at least half selected from the corporate patent bar.

While I am sure that I would not agree with all their decisions, or everything that was said in their opinions, I would have confidence that the decisions of the CAFC on both patent and nonpatent cases would be reached by judges who are capable and competent, with a thorough understanding of the issues.

THE CONSTITUTIONALITY OF TRADE SECRET DISCLOSURE PURSUANT TO THE TOXIC SUBSTANCES CONTROL ACT OF 1976

GERALD D. HAYNES

In recent years, many companies have become increasingly concerned with the protection of their trade secrets. This increased concern has been in part caused by the Toxic Substances Control Act (hereinafter referred to as TSCA).[1] The power of the U.S. Environmental Protection Agency (hereinafter referred to as EPA) to demand and obtain valuable trade secret information, under TSCA, is substantial.[2] Furthermore, section 14 of the Act allows for disclosure of confidential information to certain specified persons,[3] Congress,[4] and, in certain situations, the public.[5] While submission of confidential information to EPA does not in itself destroy the owner's proprietary interest,[6] careless handling and inadvertant disclosure may. The issue therefore arises whether TSCA's treatment by EPA of confidential data under TSCA is constitutionally sound.

In Part I, this paper will briefly describe TSCA's disclosure provisions contained in section 14. Part II will examine whether Congress was within its Commerce Clause Power in enacting TSCA. Part III analyzes the concept of property, focusing on trade secrets, under the Fifth Amendment. Part IV examines the constitutionality of TSCA regarding

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[1] 15 U.S.C. § 2601 *et seq.* (1976).

[2] *See, e.g., i.d.* § 8 (Reporting and retention of information.)

[3] *See infra* notes 7-10 and accompanying text.

[4] *See infra,* notes 11-13 and accompanying text.

[5] *See infra* notes 14-23 and accompanying text.

[6] *See* Restatement of Torts, § 757 comment b (1939) (limited disclosure not incompatible with trade secret protection).

the Taking and Due Process Clauses of the Fifth Amendment. This paper then concludes that, although trade secrets are property, TSCA and its accompanying regulations provide adequate due process and do not constitute a "taking" under the Fifth Amendment.

I. DISCLOSURE OF CONFIDENTIAL INFORMATION UNDER TSCA

A. *Disclosure Within the Executive Branch*

Section 14(a) of TSCA provides for disclosure to various specified persons authorized by the Administrator. Confidential information "shall be disclosed to any officer or employee of the United States...in connection with the official duties of such officer or employee under any law for the protection of health or the environment, or...for specific law enforcement purposes."[7] In addition, disclosure to EPA contractors is provided when "in the opinion of the Administrator such disclosure is necessary for the satisfactory performance by the contractors of a contract with the United States... in connection with this chapter."[8] Section 14(a) also provides that submitted information "shall be disclosed if the Administrator determines it necessary to protect health or the environment against an unreasonable risk of injury."[9] Finally, section 14(a) provides that confidential business information "may be disclosed when relevant in any proceeding under this chapter, except that disclosure in such a proceeding shall be made in such a manner as to preserve confidentiality to the extent practicable without impairing the proceeding."[10]

B. *Disclosure to Congress*

In addition to providing disclosure within the Executive Branch, section 14 allows very broad disclosure to Congress.[11] There are limits to what information Congress may request, but these exceptions are nar-

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[7] 15 U.S.C. § 2613(a) (2) (1976).

[8] *Id.* § 2613(a) (2).

[9] 15 U.S.C. § 2613(a) (3) (1976).

[10] *Id.* § 2613(a) (4).

[11] *Id.* § 2613(e). This section states that: "all information reported to or otherwise obtained by the Administrator (or any representative of the Administrator) under this Act shall be made available, upon written request of any duly authorized committee of the Congress, to such committee."

row in scope.[12] In general, Congress' investigatory powers are limited only to the extent that the investigations serve a legislative purpose.[13]

C. *Disclosure to the Public*

Information submitted pursuant to TSCA may also be the subject of a Freedom of Information Act (hereinafter referred to as FOIA)[14] request.[15] The regulations allow a company to claim confidential treatment of certain information,[16] however, the need for confidentiality does not arise until EPA receives a FOIA request. EPA then notifies the submitting company, providing it time within which it must present comments in support of any confidentiality claim.[17] To determine whether the information deserves confidential treatment, EPA applies a five-part test.[18] If EPA's legal office decides that the information is not entitled

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[12] *See, e.g.*, Watkins v. United States, 354 U.S. 178, 188 (1957) (Congress may not interfere with the guarantees of the Bill of Rights in conducting an investigation); *Quinn v. United States*, 349 U.S. 155, 161 (1955) (Congress may not inquire into purely private matters which are unrelated to the subject matter of the legislation).

[13] *See Watkins*, 354 U.S. at 187.

[14] 5 U.S.C. § 552 (1976).

[15] *See* 15 U.S.C. § 2613(b) (2) (1976).

[16] The regulations under TSCA allow a company to claim confidential treatment for six items of information: "company name; [plant] site; the specific chemical identity; whether the chemical substance is manufactured, imported or processed; whether the chemical substance is manufactured and processed only within one site and not distributed for commercial purposes outside that site; and the quantity manufactured, imported or processed." 40 C.F.R. § 710.7(a) (1979).

[17] 40 C.F.R. § 2.240(d) (1979).

[18] [I]nformation is entitled to confidential treatment...if-

(a) The business has asserted a business confidentiality claim which has not expired by its terms, nor been waived nor withdrawn;

(b) The business has satisfactorily shown that it has taken reasonable measures to protect the confidentiality of the information, and that it intends to continue to take such measures;

(c) The information is not, and has not been, reasonably obtainable without the business' consent by other persons (other than governmental bodies) by use of legitimate means;...

(d) No statute specifically requires disclosure of the information; and

(e) Either-

(1) The business has satisfactorily shown that disclosure of the information is likely to cause substantial harm to the business' competitive position; or

(2) The information is voluntarily submitted... and its disclosure would be likely to impair the Government's ability to obtain necessary information in the future.

Id. § 2.208 (1979).

to confidential treatment, notice is furnished to the submitting company, allowing it to seek judicial review.[19]

In addition, TSCA does not prohibit the disclosure of submitted health and safety studies.[20] The Act states that disclosure is not prohibited with respect to any chemical substance or mixture which has been offered for commercial distribution, or for which testing or notification is required.[21] Also included are "any data reported to, or otherwise obtained by, the Administrator from a health and safety study" relating to such chemicals.[22] This section, however, does not authorize disclosure of data "which discloses processes used in the manufacturing or processing of a chemical substance" or the chemical substances comprising a mixture.[23]

II. CONGRESSIONAL AUTHORITY TO REGULATE COMMERCE

In determining whether TSCA's disclosure provisions are constitutional, the threshold issue is whether Congress has the power to regulate the chemical industry pursuant to the Commerce Clause. It is well-settled that Congress may properly act "to prevent the flow of commerce from working harm to the people of the nation."[24] Further, it has been long-established that there need only be some rational basis for congressional action in order to sustain an exercise of the plenary authority granted to Congress by the Commerce Clause.[25] More specifically, federal regulation of activities causing potential environmental damage has been upheld consistently.[26]

Congress' decision to provide for the disclosure to certain persons of submitted data in specific circumstances is a legitimate exercise of the commerce power. Section 14 of TSCA rationally effectuates Congress' interest in minimizing the hazards of toxic substances. Disclosure of information to federal agencies as well as EPA contractors.[27] merely aids the Executive Branch in implementing congressional intent. In addi-

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[19] 40 C.F.R. § 2.205(f) (2) (1979).

[20] 15 U.S.C. § 2613(b) (1976).

[21] *Id.* § 2613(b) (1) (A).

[22] *Id.* § 2613(b) (1) (B).

[23] *Id.* § 2613(b) (1).

[24] Mulford v. Smith, 307 U.S. 38, 48 (1939).

[25] *See* United States v. Darby, 312 U.S. 100, 121 (1941).

[26] *See* Hodel v. Virginia Surface Mining & Reclamation Ass'n, 452 U.S. 264, 282 (1981).

[27] *See supra* notes 7-10 and accompanying text.

tion, the disclosure of health and safety studies[28] enables members of the public to assess for themselves the safety and efficiacy of toxic substances and allows the public to participate in and evaluate EPA's decisions.[29] Finally, access to the data by congressional committees allows Congress to monitor the implementation of its policies as envisioned by TSCA.[30] In sum, disclosure pursuant to section 14 of TSCA is rationally related to a legitimate governmental interest and is a valid regulation of commerce by Congress pursuant to the Commerce Clause.

III. PROPERTY PROTECTED BY THE FIFTH AMENDMENT

Even if Congress has the authority under the Commerce Clause to regulate the chemical industry, it must still abide by the guarantees of property mandated by the Constitution. The ultimate protection afforded property rights arises from the Fifth Amendment imperative that "[n]o person shall be...deprived of...property, without due process of law; nor shall private property be taken for public use, without just compensation."[31] This paper now analyzes the problematic concept of property with respect to the recognition of trade secret owners' substantive rights in data submitted pursuant to section 14 of TSCA. Next, section 14 is examined to determine if it violates the Taking Clause. Finally, section 14 is analyzed to determine if it violates the Due Process Clause.

A. *Definition of Trade Secret*

The definition of trade secrets, has generated considerable litigation. EPA once argued that statutory exemptions from data disclosure applied only to a narrow range of information, primarily statements of formulae and manufacturing processes. Data submitting firms, however, challenged EPA's narrow interpretation and obtained several decisions broadening the definition of "trade secret".[32]

For example, in *Chevron Chemical Co. v. Costle,*[33] the court held that trade secret status applied to any data, including health, safety, and environmental data, which met the definition set forth in the

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[28] *See supra* notes 20-23 and accompanying text.

[29] *See generally,* McGarity & Shapiro, *The Trade Secret Status of Health and Safety Testing Information: Reforming Agency Disclosure Policy,* 93 Harv. L. Rev. 837 (1980).

[30] *See supra* notes 11-13 and accompanying text.

[31] U.S. Const. amend V.

[32] *See* Mobay Chemical Corp. v. Costle, 447 F. Supp. 811 (W.D. Mo. 1978); Chevron Chemical Co. v. Costle, 443 F. Supp. 1024 (N.D. Cal. 1978).

[33] 443 F. Supp. 1024 (N.D. Cal. 1978).

Restatement of Torts (1939).[34] In determining trade secret status the court cited several criteria:

> (1) the cost of developing the data; (2) the value of the data to competitors, *i.e.*, the extent of the competitive advantage; (3) the extent to which the data are not independently known or available to others; and (4) the extent to which the owner has maintained this confidentiality.[35]

Thus, under this broad definition, many of the data disclosed pursuant to section 14 of TSCA are trade secrets and must be accorded protection as such. The question remains, however, whether this information constitutes a property interest protected by the Fifth Amendment.

B. *Trade Secrets as Property*

The issue of whether confidential information submitted pursuant to TSCA constitutes a Fifth Amendment property interest first arose in *Polaroid Corp. v. Costle.*[36] There, the company requested postponement of the submission of certain confidential photographic substances until after the EPA promulgated final and adequate confidentiality regulations.[37] Polaroid claimed that the Fifth Amendment required the creation of appropriate safeguards before EPA could obtain or distribute such secret information.[38] Polaroid argued that: (1) trade secrets are property

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[34] *Id.* at 1032. § 757 of the Restatement provides:
One who discloses or uses another's trade secret, without a privilege to do so, is liable to the other if
(a) he discovered the secret by improper means, or
(b) his disclosure or use constitutes a breach of confidence reposed in him by the other in disclosing the secret to him, or
(c) he learned the secret from a third person with notice of the facts that it was a secret and that the third person discovered it by improper means or that the third person's disclosure of it was otherwise a breach of his duty to the other, or
(d) he learned the secret with notice of the facts that it was a secret and that its disclosure was made to him by a mistake.

[35] *Id.* at 1031; *accord,* Mobay Chemical Corp. v. Costle 447 F. Supp. 811, 829 (W.D. Mo.), *app. dismissed,* 439 U.S. 320, *reh. denied,* 440 U.S. 940 (1978). The court in *Chevron* noted that other factors such as the: promotion of research, interest in competition, protection of public health and the environment, may be relevant as well. *Chevron,* 443 F. Supp. at 1032.

[36] *See Patent, Trademark & Copyright Briefs,* [Jan.-June] Pat. Trademark & Copyright J. (BNA) No 383, at A-12 (June 15, 1978) [hereinafter cited as *Patent Briefs*].

[37] *Id.*

[38] Polaroid also argued that EPA violated TSCA and the Administrative Procedures Act (hereinafter referred to as the APA), 5 U.S.C. § 551 *et seq.* (1966). Polaroid claimed that TSCA was violated because: (1) preservation of the confidentiality of secret information is required by section 14; (2) EPA acknowledged that Congress intended section 14 to necessitate modification of EPA's existing confidentiality regulations; and (3) forcing Polaroid to submit secret information before promulgation of adequate con-

protected by the Fifth Amendment; (2) if Polaroid were required to submit information before promulgation of protective regulations and before an opportunity existed to exercise its rights to challenge the regulations, Polaroid's due process rights would be violated; and (3) the existing regulations did not provide for advance notice before disclosure of confidential information and therefore further violated Polaroid's constitutional rights. In short, Polaroid was fearful that its submitted trade secrets would not be kept confidential.

EPA argued, however, that Polaroid was adequately protected by section 14 and by existing procedures. It noted that section 14 forbids unauthorized disclosures,[39] provides notice to the submitter of confidential information before disclosure,[40] and imposes criminal sanctions on federal officers and their contractors for willful unauthorized disclosures.[41] Furthermore, EPA asserted that Polaroid's allegations were hypotheticals because they assumed "that despite legal constraint and potential criminal penalties the agency will willfully or carelessly reveal trade secret information improperly."[42] Nevertheless, the trial court granted a temporary restraining order preventing EPA from disclosing the submitted information until a settlement could be reached.[43]

Polaroid was subsequently granted a preliminary injunction that barred EPA from disclosing submitted information.[44] The court questioned the constitutionality of TSCA, particularly whether disclosures to Congress[45] or within the Executive Branch[46] permitted the taking

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fidentiality safeguards violated section 14. Polaroid's APA argument ran as follows: (1) EPA's order, requiring submission of data, and its refusal to grant an extension were final agency actions; (2) such actions are reviewable under the APA; and (3) EPA's denial of an extension was arbitrary and capricious and violated the APA.

[39] *See* 15 U.S.C. § 2613(d) (1976).

[40] *See, e.g.*, 40 C.F.R. § 2.209(c) (3) (notice at least ten days prior to disclosure to another agency); *id.* § 2.209(b) (at least ten days notice prior to disclosure to Congress); *supra* note 19 and accompanying text (notice regarding FOIA).

[41] 15 U.S.C. § 2613(d) (1976).

[42] *Patent Briefs, supra* note 36, at A-13.

[43] *See id.* at A-12.

[44] *See Disclosure Law Which Does Not Protect Trade Secrets May Be Unconstitutional,* [July-Dec.] Pat. Trademark & Copyright J. (BNA) No. 389, at A-9 (Aug. 3, 1978) [hereinafter cited as *Disclosure Law*]. EPA had previously contended that jurisdiction existed only at the appellate level. Thus, Polaroid had filed suit in the First Circuit (No. 78-1235, filed June 16, 1978). The district court believed that the First Circuit was the proper forum, but granted the preliminary injunction because of the constitutional problems involved.

[45] *See supra* note 11-13 and accompanying text.

[46] See supra notes 7-10 and accompanying text.

of property without notice or compensation.[47] The case, however, was settled, leaving unanswered the question of whether data submitted under TSCA constituted property protected by the Fifth Amendment.[48]

Although no subsequent courts have addressed this issue, guidance may be found from analogous cases interpreting disclosure sections of statutes which are similar to TSCA. For example, in *Monsanto v. Ruckelshaus,*[49] the plaintiff alleged that the data disclosure provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (hereinafter referred to as FIFRA)[50] effected a taking of property, without just com-

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[47] *See Disclosure Law, supra* note 44, at A-9.

[48] Later in 1978, EPA established new regulations relating to business confidentiality which provided for advance notice before disclosure. 43 Fed. Reg. 39,997 (1978). As a result, Polaroid concluded that EPA intended to provide additional future safeguards and ordered its earlier action dismissed. *See Disclosure Law, supra* note 44, at A-9. Recently, however, Polaroid has reopened the litigation alleging that EPA has failed to abide by its own security and notice procedures and has broadly disseminated Polaroid's trade secrets in violations of TSCA and the Constitution. Complaint, Para 1. Polaroid argues that, *inter alia,* EPA's disclosures

> of Polaroid's confidential business information and trade secrets constitute violations of TSCA section 14 and takings of property in violation of the Fifth Amendment.
>
> 63. EPA's broad and unlawful disclosures of Polaroid's confidential business information which are not justified by a sufficiently compelling government interest violate Polaroid's right to privacy in its commercial information.
>
> 64. TSCA section 14 is unconstitutional because it permits Polaroid's trade secrets to be disclosed without providing for adequate notice to Polaroid, in violation of Polaroid's Fifth Amendment right to due process of law.

Id. Paras. 62-64.

[49] 467 U.S. , 104 S.Ct. , 81 L.Ed.2d 815 (1984).

[50] 7 U.S.C. § 136 *et seq.* (1980). FIFRA requires pesticide manufacturers to obtain registration from EPA before their pesticide products may be sold in the United States. A pesticide may be registered if its use will not cause unreasonable adverse effects to the environment, *id.* § 136a (c) (5), or, in the case of products similar to those already registered, will not significantly increase the risk of such effects. *Id.* § 136a (c) (7). To carry out its regulatory responsibilities, EPA has required manufactuers to submit a variety of test data in support of applications for registrations. These data define the risks and benefits of the product for which registration is sought, and generally include data on the chemical nature and structure of the pesticide, as well as test data concerning potential dangers of the products. Under section 10(d), EPA must, upon request by qualified persons, disclose:

> [a]ll information concerning the objectives, methodology, results, or significance of any test or experiement performed on or with a registered or previously registered pesticide or its separate ingredients, impurities, or degradation products, and any information concerning the effects of such pesticide on any organism or the behavior of such pesticide in the environ-

pensation and in violation of the Fifth Amendment. The district court found the challenged FIFRA provisions to be unconstitutional, and permanently enjoined EPA from implementing or enforcing them.[51]

Before the Supreme Court, EPA made several arguments contending that Monsanto's submitted data were not property within the meaning of the Taking Clause. First, it asserted that whatever rights Monsanto had, they became subject to the federal regulatory scheme when Monsanto chose to submit data in order to obtain registration.[52] EPA reasoned that trade secret protection is based exclusively on the legal obligation of the persons who obtain and have the power to disclose or use the secret.[53] Thus, it is federal law rather than state law that is the source of these obligations under FIFRA and Monsanto's claim would be defeated. This argument, however, assumes that Monsanto waived its Fifth Amendment rights in the submitted data. To accept EPA's argument would be to sanction any governmental regulation that destroys property, for the relinquishment of private property cannot be deemed a condition of engaging in interstate commerce.[54]

Second, EPA argued that the challenged provisions were part of a comprehensive federal scheme and that state law was preempted to the extent that it conflicted with that scheme.[55] Thus, even if a state law created a property right in the submitted data, it would be preempted because FIFRA's proper functioning depends on uniform application to all data. This argument, however, is unpersuasive. Congress can preempt state law but it cannot preempt the Fifth Amendment. Otherwise, federal legislation could always be construed as redefining rather than taking property.

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ment, including but not limited to, data on safety to fish and wildlife, humans and other mammals, plants, animals, and soil, and studies on persistence translocation, and fate in the environment, and metabolism.

Id. § 136h (d) (1).

[51] Monsanto Co. v. Acting Administrator, U.S. Environmental Protection Agency, 564 F. Supp. 552 (E.D. Mo. 1983). The trial court found that: (1) Monsanto had an entitlement created by state law in the data it submitted; (2) EPA's public disclosure of the submitted data constituted a "taking" within the meaning of the Fifth Amendment; and (3) Monsanto had not received just compensation for the taking of property by EPA. *Id.* at 564-68.

[52] Brief for Appellant at 18, 27-28, *Monsanto,* 81 L.Ed.2d 815 (1984).

[53] *Id.* at 29.

[54] *See* Standard Airlines, Inc. v. CAB, 177 F.2d 18, 20 (D.C. Cir. 1949) (stating that "[g]overnment cannot make a business dependent upon a permit and make an otherwise unconstitutional requirement a condition to the permit").

[55] Brief for Appellant at 18, 27-28, *Monsanto,* 81 L.Ed. 2d 815 (1984).

Despite EPA's arguments, the Supreme Court found that Monsanto had a property interest, protected by the Fifth Amendment.[56] The Court began its analysis by noting that property interests are not created by the Constitution but are created and defined by "existing rules or understandings that stem from an independent source such as state law."[57] Next, the court noted the intangible nature of trade secrets, but observed that they had many of the attributes of more tangible forms of property.[58] In addition, the Court stated that other kinds of intangible interests have been found to be property for the purposes of the Fifth Amendment Taking Clause.[59] Finally, the Court concluded that Monsanto had an interest, cognizeable as a trade secret property right protected by the Taking Clause.[60]

The Court's analysis of trade secrets in *Monsanto* applies to data submitted pursuant to TSCA. Whether defined as a secret formula, pattern, or device used in one's business[61] or any unpatented idea which may be used for commercial purposes,[62] trade secrets are the product of labor and capital, and must be considered property. Unless trade secrets are legally protected, "organized scientific and technological research could become fragmented, and society as a whole, would suffer."[63] Trade secret law promotes the efficient operation of industry and "permits the individual inventor to reap the rewards of his labor."[64] Many of the data submitted under TSCA are the result of enormous expenditures of time, money, and effort. These data are extraordinarily valuable and should be accorded rights as property under the Fifth Amendment.

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[56] *Monsanto*, 81 L.Ed.2d at 833.

[57] *Id.*, at 831, *quoting*, Webb's Fabulous Pharmacies, Inc. v. Beckwith, 449 U.S. 155 (1980).

[58] *Id.* at 832. *See* Dr. Miles Medical Co. v. John D. Park & Sons Co., 220 U.S. 373 (1911) (trade secret is assignable); Restatement (Second) of Trusts § 82, comment e (1959) (trade secret can form the res of a trust); In re Uniservices, Inc., 517 F.2d 492, 496-97 (7th Cir. 1975) (trade secret passes to a trustee in bankruptcy).

[59] *Id. See* Armstrong v. United States, 364 U.S. 40, 44, 46 (1960) (materialman's lien arising under state law protected by Taking Clause); Louisville Joint Stock Land Bank v. Radford, 295 U.S. 555, 596-602 (1935) (real estate lien protected by Taking Clause); Lynch v. United States, 292 U.S. 571, 579 (1934) (valid contracts are property within the meaning of the Taking Clause).

[60] *Id.* at 833.

[61] Restatement of Torts § 757 comment b (1939).

[62] Painton & Co. v. Bourns, Inc., 442 F.2d 216, 222, n. 2 (2d Cir. 1971).

[63] Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 486 (1974).

[64] *Id.*

Having determined that submitters of data pursuant to TSCA have a property interest, the next issue to be considered is whether section 14 of TSCA effects a "taking" by disclosing confidential information to specified persons.

IV. CONSTITUTIONALITY OF TSCA UNDER THE FIFTH AMENDMENT

A. *Taking of Property*

No set formula has been articulated by the Supreme Court for determining what constitues a "taking". Whether a "taking" has occurred is essentially an *ad hoc* factual inquiry considering: (1) the nature of the invasion by the government; (2) the economic impact on the owner's use of the property, particularly its interference with distinct investment backed expectations; and (3) the public program or interest designed to benefit from the regulation.[65]

In *Monsanto,* the trial court stated that the disclosure section of FIFRA allowed the public to share in the regulation of the pesticide industry and found that Monsanto's data were committed to the public domain and were therefore permanently destroyed.[66] In short, the court found FIFRA's disclosure section to be "'beyond Congress' regulatory powers and constitute[d] a taking."[67] In arguing for reversal, EPA asserted that no taking had occurred when the nature of the government action and the strong public policies it fosters are weighed against the limited impact on the data submitter.[68] This analysis applies to TSCA as well.

Whether TSCA destroys all property rights is an important consideration. The destruction of one strand of the owner's full bundle of property rights is not a "taking".[69] Section 14 allows disclosure of data only to certain classes of persons[70] and imposes criminal penalties for wrongful disclosure.[71] Moreover, the data submitter retains valuable rights to exploit the data.

In contrast, the public interest served by TSCA is substantial. Congress found an overriding public policy to assure that advances in the chemical industry did not present an unreasonable risk of injury to

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[65] Penn Central Transportation Co. v. New York, 438 U.S. 104, 124-28 (1978).

[66] 564 F. Supp. 552, 567 (E.D. Mo. 1983).

[67] *Id.*

[68] Brief for Appellant at 18, 37-40, *Monsanto,* 81 L.Ed.2d 815 (1984).

[69] Andrus v. Allard, 444 U.S. 51, 65-66 (1979).

[70] *See supra* notes 7-23 and accompanying text.

[71] *See* § 14(d).

health or the environment.[72] Although section 14 of TSCA provides for limited adjustment of a firm's rights regarding submitted data, this is the burden the company must bear in exchange for "the advantage of living and doing business in a civilized community."[73]

Similarly, in *Monsanto,* the Court found that FIFRA's disclosure section did not constitute a "taking" of property. The Court reasoned that Monsanto could not have had a reasonable, investment-backed expectation that EPA would keep the data confidential beyond the limits prescribed by FIFRA.[74] Likewise, firms submitting data pursuant to TSCA are on notice of the manner in which EPA is authorized to use and disclose submitted data. If, despite the data disclosure provisions in the statute, firms choose to submit the requisite data, they cannot argue that their reasonable investment-backed expectations are disturbed when EPA discloses data as mandated by section 14 of TSCA.

In sum, as long as firms are aware of the conditions under which data are submitted, and the conditions are rationally related to a legitimate governmental interest,[75] a voluntary submission of data by an applicant in exchange for the economic advantages of registration under TSCA, is not a "taking". Thus, section 14 of TSCA passes muster under the Taking Clause of the Fifth Amendment.

B. *Denial of Due Process*

The final question regarding the constitutionality of TSCA is whether section 14 denies the owner of trade secret information due process. Having determined that the data submitter has a constitutionally protected property right,[76] the issue arises "what process is due?"[77] The Supreme Court has answered this question by stating that: "The essence of due process is the requirement that 'a person in jeopardy of serious loss [be given] notice of the case against him and the opportunity to meet it.'"[78]

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[72] *Id.* § 2(a).

[73] *Allard,* 444 U.S. at 67, *quoting,* Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 422 (1922) (Brandeis, J., dissenting).

[74] *Monsanto,* 81 L.Ed.2d. at 834.

[75] *See supra* notes 24-30 and accompanying text.

[76] *See supra* notes 31-64 and accompanying text.

[77] Morrisey v. Brewer, 408 U.S. 471, 481 (1972).

[78] Mathew v. Eldridge, 424 U.S. 319, 348 (1976) *quoting,* Joint Anti-Fascist Comm. v. McGrath, 341 U.S. 123, 171-72 (1950) (Frankfurter, J., concurring).

An attack upon TSCA for failure to provide adequate notice cannot be sustained. For disclosures within the executive branch,[79] and to congressional committees,[80] detailed notice procedures are outlined by the regulations. Furthermore, disclosure to Congress is not a public disclosure, hence there is no deprivation of property and no violation of due process even in the absence of notice.[81] Finally, the statute itself requires the Administrator to notify the submitter of confidential data in the event that a FOIA request is received.[82] In sum, section 14 of TSCA, and its accompanying regulations provide the basics of due process.

CONCLUSION

Many of the data submitted pursuant to TSCA are trade secrets, and as such, are protected as property by the Fifth Amendment. Disclosure of such data is, however, rationally related to a legitimate governmental interest and is a valid regulation of commerce by Congress pursuant to the Commerce Clause. Furthermore, disclosure does not constitute a "taking" under the Taking Clause and the basics of due process are provided by section 14 and its accompanying regulations. In sum, TSCA's treatment of trade secrets, submitted as data pursuant to section 14, is constitutionally sound.

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[79] *See* 40 C.F.R. § 2.306(i) (disclosure of information relevant in a proceeding); *id.* § 2.306(j) (disclosure of information to contractors and subcontractors); *id.* § 2.306(k) (disclosure of information when necessary to protect health or the environment against unreasonable risk of injury); *id.* § 2.209(c) (disclosure to other Federal agencies).

[80] *See* 40 C.F.R. § 2.209(b) (disclosure to Congress or the Comptroller General). Moreover, in Exxon v. Federal Trade Commission, 589 F.2d 582 (D.C. Cir. 1978), the court held that such notice is not constitutionally required, and suggested that a notice requirement might cause other constitutional problems. The court stated that imposition of a mandatory notice period would "skirt dangerously close to being at least the temporary 'equivalent to an order quashing [the official request or subpeona] which is generally an impermissible frustration of the congressional power to investigate.'" *Id.* at 588.

[81] *See id.* at 589.

[82] 15 U.S.C. § 2613(c) (2) (A).

COMMENTARY

I. Rubik's Cube — Public Use and on Sale — Moleculon Research Corp. v. CBS, Inc., 229 U.S.P.Q. 805 (Fed. Cir. 1986).

A puzzle enthusiast since childhood, Nichols in the summer of 1957, conceived of a three-dimensional puzzle capable of rotational movement. He envisioned an assembly of eight cubes attached in a 2 x 2 x 2 arrangement, with each of the six faces of the composite cube distinguished by a different color and the individual cubes being capable of rotation in sets of four around one of three mutually perpendicular axes.

During the period from 1957 to 1962, while doing graduate work in organic chemistry, Nichols constructed several paper models of his puzzle, making cubes of heavy file-card type paper and affixing small magnets to the inside of the cubes. Although these models confirmed the feasibility of Nichols' conception, they lacked durability. A few close friends, including two roommates and a colleague in the Chemistry Department, had occasion to see one of these paper models in Nichols' room, and Nichols explained its operation to at least one of them.

In 1962, Nichols accepted employment as a research scientist at Moleculon. In 1968, Nichols constructed a working wood block prototype of his puzzle which he usually kept at home but on occasion brought into his office. In January 1969, Dr. Obermayer, the President of Moleculon, entered Nichols' office and happened to see the model sitting on his desk. Obermayer expressed immediate interest in the puzzle and Nichols explained its workings. Obermayer asked whether Nichols intended to commercialize the puzzle. When Nichols said "no", Obermayer suggested that Moleculon try to do so. In March 1969, Nichols assigned all his rights in the puzzle invention to Moleculon in return for a share of any proceeds of commercialization. On March 7, 1969, Moleculon sent Parker Brothers an actual model and a description of the cube puzzle. In the next three years, Moleculon contacted between 50 and 60 toy and game manufacturers, including Ideal.

On March 3, 1970, Nichols filed (on behalf of Moleculon) a patent application covering his invention. The corresponding patent issued on April 11, 1972.

CBS labels as public use Nichols' displaying of the models to other persons (such as his colleagues at school) without any mention of secrecy.

CBS ascribes only commercial purpose and intent to Obermayer's use of the wood model and argues that a conclusion of barring public use under 102(b) is compelled.

Nichols had not given over the invention for free and unrestricted use by another person. Based on the personal relationships and surrounding circumstances, the District Court found that Nichols at all times retained control over the puzzle's use and the distribution of information concerning it. The District Court characterized Nichols' use as private and for his own enjoyment. The CAFC found neither a legal error in such analysis nor clear error in the findings.

As for Obermayer's brief use of the puzzle, the District Court found that Nichols retained control even though he and Obermayer had not entered into any express confidentiality agreement. The District Court held that the presence or absence of such an agreement is not determinative of the public use issue.

CBS argued that the claimed invention was on sale within the meaning of 35 U.S.C. 102(b) because Nichols orally agreed prior to the critical date to assign "all his rights in the puzzle invention" to Moleculon. According to CBS, Nichols not only assigned the right to apply for a patent on the invention but also conveyed title in his single wooden model.

Although the formal written assignment occurred after the critical date, the District Court held that even if there were an earlier oral agreement, an assignment or sale of the rights in the invention and potential patent rights is not a sale of "the invention" within the meaning of Section 102(b). The CAFC agreed.

II. (a) Depositing Cell Lines to Satisfy Enablement Requirements (b) Obvious To Try — Ex parte Old, et al., 229 USPQ 196 (PTO Bd Pat App and Int 1985)

a) In this case the claimed invention had been reduced to practice prior to the filing date of the application on appeal and the appellants had agreed to deposit the hybridoma cell lines at a recognized depository upon the patent grant. In the interim, the cell lines were being maintained at Sloan-Kettering, an institution of renown and integrity. This was regarded as in full compliance with the requirements imposed upon Appellants under *Lundak* [227 USPQ 90 (CAFC 1985)].

Although the technique underlying *hybridoma technology* is well recognized, the results obtained by its use are clearly unpredictable. Hybridoma technology is an empirical art in which the routineer is unable to forsee what particular antibodies will be produced and which specific surface antigens will be recognized by them. Only by actually

carrying out the requisite steps can the nature of the monoclonal antibodies be determined and ascertained; no "expected" results can thus be said to be present. Hence, it may be "obvious to try" the Kohler-Milstein technique as applied to malignant renal cells, but such is not the standard under which obviousness under 35 U.S.C. 103 must be established.

b) The Examiner was of the view that here "obvious to try" becomes "obvious to try with a reasonably good chance for success," whatever "success" means inasmuch as he himself does not urge that the character of the monoclonal antibodies or of the renal antigenic systems could be predicted, and that, consequently, the rationale of *Tomlinson* [150 USPQ 623 (CCPA 1966)] becomes inapplicable.

This attempted distinction is one of semantics, not of substance, and can not be basis for vitiating the well established axiom that "obvious to try" is not the same as "obviousness" under Section 103 of the Statute.

 Irwin M. Aisenberg

LAW AND FACT IN PATENT LITIGATION: FORM VERSUS FUNCTION

THOMAS G. FIELD, JR.*

INTRODUCTION

Recently, the Supreme Court sent *Dennison Mfg. v. Panduit Corp.* back to the Court of Appeals for the Federal Circuit (CAFC)[1]. It remanded with explicit directions that the lower court consider the extent to which Rule 52(a)[2] governs appellate review of determinations of obviousness.

On remand, the CAFC should attempt to relate the issue to the scope of review for other issues which arise in patent appeals. Neither the narrow nor the broad problem has ever gotten the attention which it deserves — particularly from the standpoint of the fundamental law/fact dichotomy.

It is by no means certain that obviousness determinations should be treated as questions of law. Nevertheless, there is ample evidence that courts seek to review findings of obviousness (or nonobviousness) more intensely than would be appropriate for questions of fact under the "clearly erroneous" or "substantial evidence" standards. If the courts are inclined to persist in more intense review of obviousness, this paper will argue that two other matters need to be considered: First, whether more liberal review should be extended to all questions concerning the validity of a patent, and, second, whether such review should be conducted under the "constitutional fact" doctrine. The former would ad-

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[1] 106 S.Ct. 1578.

[2] Fed.R.Civ.Proc. The rule provides that "[f]indings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge the credibility of the witnesses."

dress apparent inconsistencies in the current law, and the latter would allow appellate courts an expanded role (function) without unduly confusing terminology (form).

THE LAW/FACT DICHOTOMY

The most directly relevant precedent governing appellate review of patent litigation is quite cryptic. It is quoted in the per curiam decision which remands *Dennison* to the CAFC[3]. It consists of one sentence from the earlier Supreme Court decision in *Graham v. John Deere Co.*[4]: "While the ultimate question of patent validity is one of law, . . . the § 103 condition . . . lends itself to several basic factual inquiries."

However, what that sentence means is far from clear because the *Graham* court indicated neither its reasons nor its authority for denominating questions of patent validity, in general, or obviousness, specifically, as ones of "law" (as contrasted with "fact"). As will be shown below, without an analysis of those two matters, it is very difficult to determine either whether validity issues other than obviousness should be treated as ones of "law" or, in any case, what sort of treatment should accompany the label. It is to be hoped that, following the remand of *Dennison,* some progress will be made toward resolving those important problems.

While a great deal has been written on the law/fact dichotomy, a brief overview is nevertheless in order[5]. Because the terms, "law" and "fact" are used in a number of ways[6], it is necessary to define them in the context of the present discussion. When approached that way, the term, "fact," is more precisely called "adjudicative fact[7]," and the most accurate definition is operational. In short, a question of adjudicative fact is one of the kind traditionally regarded as appropriate for jury determination. Conversely, a question of "law" is anything which remains — including

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[3] *Id.,* at 1579.

[4] 383 U.S. 1, 17-18 (1966).

[5] The earliest paper on the narrow topic seems to be Note, *Nonobviousness in Patent Law: A Question of Law or Fact?,* 18 WM.&M.L.REV. 612 (1977); in it the author cites several more comprehensive articles. More recently, 12(4) AIPLA Q.J. (1985) was devoted entirely to the topic, both broadly and narrowly.

[6] *E.g.,* "law" versus "equity" or "fact" versus "opinion."

[7] *See* F.R.Evid. 201, advisory committee note.

questions of "legislative" fact, the latter being used, even by courts, in conjunction with values, to evolve general rules[8].

Unfortunately, the water is muddied when courts occasionally refer to factual issues being resolved as a "matter of law[9]." Yet, even there, the operational definition stands: if a proposition is sufficiently well established in the record that reasonable minds could not differ on the conclusions to be reached, it is one within the ultimate control of the trial judge, not the jury. Hence, with regard to the "law/fact" distinction, the roles of judge and jury are paramount.

Indeed, the dichotomy is an inherent part of the right to a jury trial (in circumstances where such a right exists); without it, that right would be a hollow one indeed[10]. Moreover, appellate judges are as bound as trial judges to adhere to its dicates. While appellate courts may be the ultimate arbiters of issues of law, answers to questions of fact which have been properly entrusted to a jury are entitled to exceptionally deferential treatment under the "substantial evidence" standard of review[11].

For somewhat different reasons, appellate deference to findings of fact is also extended where, as in *Dennison,* no jury was present at the trial level. However, there the "clearly erroneous" standard of review is used[12]. Not only is it less deferential, but, also, the depth of review tends to vary more than with the "substantial evidence" standard.

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[8] Indeed, the distinction rests on the same operational definition: questions of adjudicative fact are the kind traditionally entrusted to juries whereas legislative facts are not. The closest one can come to avoiding circularity is to look at whether a fact is critical only to the outcome of the specific dispute or goes to establishing the rights and duties of the classes of which the parties are merely members. *See generally, e.g.,* B. SCHWARTZ, ADMINISTRATIVE LAW, 213-16 (2d Ed. Little, Brown and Co., 1984).

[9] *See* Railroad Dynamics v. A. Stucki Co., 727 F.2d 1506 (CAFC 1984); Judge Markey, at 1513, appears to use the terms in the alternative. *Compare* their more traditional use, *e.g.,* in Garst v. General Motors Co., 484 P.2d 47 (Kan. 1971); at 63, both the majority and dissent are of interest in that regard.

[10] Thus, the Seventh Amendment commands that "no fact tried by a jury, shall be otherwise re-examined . . . than according to the common law."

Whether one is entitled to a jury trial in patent litigation, by virtue of the Constitution as contrasted with the statute, is another matter altogether. *See, e.g.,* NLRB v. Jones & Laughlin Steel Corp., 301 U.S. 1, 48-49, holding that one is not entitled to a jury trial in an action to award back pay under the National Labor Relations Act. *See also,* Constantino and Master, *The Seventh Amendment Right to a Jury Trial in Complex Civil Litigation . . . ,* 12 AIPLA L.Q. 279 (1985).

[11] *See, e.g.,* Coolley, *Patent Jury Issues . . . ,* 67 J.P.O.S. 3, 4-6 (1985).

[12] *See* note 2, *supra.*

On one end of the spectrum, demeanor evidence is afforded maximum deference — apparently for the simple reason that any reviewing body would be hard pressed to justify reversal on factual issues which could be resolved only by evaluating the relative credibility of live witnesses[13]. On the other end of the spectrum, much less deference may be afforded to inferences to be drawn from purely documentary evidence. Consider whether a three judge appellate panel is not equipped as well as or better than a single trial judge to assess, for example, the likely consumer impact of an allegedly deceptive advertisement — in the absense, of course, of arguably more probative survey data[14].

When all is said and done, it seems that appellate deference to the findings of judges sitting without juries rests more on efficiency and common sense than anything else. Nevertheless, the Supreme Court, as demonstrated in *Dennison,* and even more so in its 1982 *Inwood Laboratories* decision[15], tends to insist on more than token deference.

"CONSTITUTIONAL FACTS"

Notwithstanding all of the foregoing, and regardless of whether facts may have been initially decided with the aid of a jury, an argument can be made that courts should give above-average scrutiny to cases in which fundamental constitutional interests are at stake. Indeed, the Supreme Court held exactly that in *Bose Corp. v. Consumers Union of United States*[16]. While the decision concerned freedom of speech and product disparagement, not patents, it is still of interest.

In *Bose,* the court held that appellate courts are obligated to exercise independent judgment in determining whether a speaker should be liable to another for mistatements of fact (in this situation, as contrasted with "opinion[17]") concerning the other's products[18]. Further, a commen-

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[13] This is specifically flagged in the Rule; *id.* Indeed, the logic of this proposition extends to situations where the standard of review would otherwise be *de novo; see, e.g.,* First Fed. Savings & Loan Ass'n. v. Fed. Home Loan Bank Bd., 426 F.Supp. 454, 475 (W.D. Ark. 1974), *aff'd.* 570 F.2d 693 (8th Cir. 1978).

[14] *See, e.g.,* Bose Corp. v. Consumers Union United States, 466 U.S. 485, 500 (1984), *rehear. den.,* 467 U.S. 1267. *See also, e.g.,* Fur Information Fashion Council v. Timme, 501 F.2d 1048, 1050-51 (2d Cir. 1974).

[15] Inwood Laboratories v. Ives Laboratories, 456 U.S. 844, 855-56 (1982).

[16] Note 14, *supra.*

[17] *Id.,* 466 U.S., at 490; *see* particularly fn. 4.

[18] The question of whether the *New York Times* standard ought to be applied to a product was not before the court; *see* 466 U.S., at 492.

tator has argued that the reasoning of the decision will make it difficult to restrict the rule to first amendment cases[19]. For that reason, he is critical of the decision. Yet, he argues that *de novo* review of "constitutional facts" found by administrative agencies is nevertheless warranted[20].

It may be of some interest to consider whether findings which deal with patent validity do not fit in either case. At least when no new art is introduced in the litigation, a challenge to validity involves not only issues of constitutional interest (in view of Art. I Sec. 8) but also a collateral challenge to findings of the Patent and Trademark Office.

It is doubtful that the Supreme Court had occasion to consider the implications of a collateral challenge to factual findings of one of the oldest (if not the oldest) U.S. administrative agencies. Nevertheless, it may well have had *Bose* (consciously or unconsciously) in mind when it remanded *Dennison.*

If the CAFC, or ultimately the Supreme Court, believes that extraordinary review of facts in patent cases is warranted, consideration should be given to whether the "constitutional fact" doctrine might be usefully extended to appellate review of patent validity. While patent attorneys are fond of referring to the constitutional underpinnings of the patent system, it is a rare case which turns on them[21]. Moreover, it is doubtful that any Supreme Court decision involving validity ever did.

Even the 1850 case which is often regarded as the genesis of the non-obviousness requirement was not based on the Constitution[22]. On the contrary, and notwithstanding a dissent claiming otherwise[23], Justice Nelson did not admit to adding a new hurdle for patentees — much less

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[19] Monaghan, *Constitutional Fact Review,* 85 COLUM.L.REV. 229, 238 (1985).

[20] *Id.,* at 276.

[21] *See e.g.,* Sears, Roebuck & Co. v. Stiffel, 376 U.S. 225, 228-31 (1964). *See also* Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 479-93 (1974). Yet neither case is based on the patent clause; both rest on the supremacy clause. Indeed, in *Sears,* at 231, "limited times" for patents is discussed as reflecting *Congressional* policy!

[22] Hotchkiss v. Greenwood, 52 U.S. 248.

[23] 52 U.S., at 267; there, Justice Woodbury argued that the proper test was whether the invention was "new, and better and cheaper," not whether "an ordinary mechanic could have devised it."

one mandated by the Constitution. Indeed, he insisted that mere novelty, even coupled with market success, had long been inadequate to support a valid patent[24].

Thus, the first Supreme Court allusion to constitutional interests being involved in generating standards of patentability does not seem to have occurred until the 1950 *A&P* case[25] — almost exactly a century later. Moreover, it arose in the context of the court's addressing the scope of appellate review in patent cases.

In that case, the Supreme Court was skeptical of the merits of a patent which had been found valid by two lower courts. While the court had adopted a rule that it would not re-examine findings of fact consistently made by two lower courts, it nevertheless found the patent invalid. The majority maintained, however, that it was reversing because the wrong legal standard had been applied[26].

The most noteworthy aspect of the case, for present purposes, is a concurring opinion in which Justice Douglas was joined by Justice Black[27]. There, it was argued that the *A&P* majority would have been justified in reversing the facts notwithstanding the two-court rule. Justice Douglas reasoned that validity is a question of law because[28] "The standard of patentability is a constitutional standard; and the question of validity is a question of law." For authority he cited *Mahn v. Harwood*[29], an 1884 case in which the Supreme Court was reviewing a decision of the Commissioner of the Patent Office. However, *Mahn* merely points out that, while the Commissioner might be entitled to some deference on questions of fact, courts have no need to defer on questions of law[30] — hardly an earth-shaking proposition, then or now[31].

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[24] He even discussed, without citing, an earlier case in which he had been involved. As Justice Nelson describes it, that case was, indeed, very similar; in it, a patent on a button using a wooden rather than a more expensive bone foundation had been found invalid.

[25] Great Atlantic and Pacific Tea Co. v. Supermarket Equipment Corp., 340 U.S. 147.

[26] *Id.*, at 153-4.

[27] *Id.*, at 154.

[28] *Id.*, at 155; *fn. omitted.*

[29] 112 U.S. 354, 358.

[30] *Id.*

[31] However, one will occasionally confront circumstances where there is deference to administrative decisions on both facts and law. *See, e.g.*, Pittston Stevedoring Corp. v. Dellaventura, 554 F.2d 35, 49-50 (2d Cir. 1976); therein Judge Friendly discusses and attempts to rationalize two conflicting lines of authority.

Had the *Graham* court cited to Justice Douglas' opinion in *A&P*, it would have been helpful in understanding what was meant by calling validity a question of law[32]. Nevertheless, the explicit constitutional origins of the patent system, perhaps coupled with the fact that an evaluation of validity may involve collateral review of administrative action, could serve as a basis for *de novo* review of questions of fact. Whether the constitutional fact doctrine or anything else should be used to that end, however, is another question altogether. Before attending to it, a closer examination of obviousness may be useful.

IS OBVIOUSNESS A SPECIAL CASE?

Whatever the CAFC decides about the appropriate standard of review for obviousness, it ought also to discuss whether that standard should differ from that applied to other requirements for a valid patent — and, if so, why. While obviousness was the primary concern in *Graham,* the decision calls *validity* a question of law, and the characterization is not limited to the nonobviousness requirement — notwithstanding that nonobviousness was the primary issue in that and the companion cases. Nevertheless, obviousness has been singled out for special treatment in the CAFC, and it should attempt to justify that difference[33].

It might try to do so based on the origins of the nonobviousness requirement. Yet, even if non-obviousness had been found in *Hotchkiss*[34] to be constitutionally mandated, an implicit requirement would hardly be more important than the utility requirement, which is about as explicit as the Constitution gets[35]. Thus, even if the "constitutional fact" doctrine were to be seized upon to justify a higher level of appellate review, obviousness would not stand out.

The CAFC might also attempt to distinguish obviousness on the basis of its technical difficulty and the tendency of fact finders to see inventions as obvious through the use of hindsight[36]. It can be freely granted

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[32] Note 4, *supra.*

[33] For a discussion of which issues have been called "law" and which "fact," *see* Hofer, *The CAFC and Fact/Law Questions in Patent Cases . . .* , 12 AIPLA L.Q. 295 (1985). Indeed, everything except issues of obviousness and claim construction appear to be treated as questions of fact.

[34] Notes 22-24 and discussion, *supra.*

[35] The reference is to the word, "useful," in the term, "useful arts." Yet, even Brenner v. Manson was not decided on this basis; *see* 383 U.S. 519, 529, 535 (1966).

[36] *See, e.g.,* the CAFC decision in *Dennison,* 744 F.2d 1082, 1091-93 (1985).

that obviousness is the most technically difficult issue in patent litigation. Still, neither that nor the tendency to Monday-morning quarterback should any more justify extra-ordinary appellate review than it would justify withholding obviousness (or, for that matter, medical malpractice) from the jury altogether[37].

Perhaps the court can devise yet another reason. If not, it will be hard pressed to justify closer scrutiny of the record with respect to nonobviousness as compared with the other requisites to a valid patent.

THE BOTTOM LINE

The CAFC, of course, has full control of issues of patent law, subject only to legislative and Supreme Court oversight. When reviewing infringement litigation, whether there is a jury or not, it has the capacity, for example, to correct for the application of erroneous legal standards, to expand the application of principles, or to carve out exceptions to rules, as necessary[38].

It also has the power to correct clear errors in resolving issues of fact. Its power is even greater where no jury is involved and/or factual issues primarily turn on documentary evidence[39]. Yet, regardless of the standard of appellate review, it cannot second-guess the resolution of disputes which center on the relative credibility of witnesses, expert or otherwise. If a case turns on the latter, irrespective of other characterizations of the issue, it is very difficult to justify reversal[40].

If closer review of certain issues of fact seems justified notwithstanding, e.g., problems with demeanor evidence, perhaps on the basis of (often correct) judicial intuition, it behooves the CAFC to confront the issue squarely. It could turn out, on closer inspection, that such review is unwarranted or, if warranted, falls within a recognized exception. It is possible, too, that a new theory may need to be evolved to explain a new exception. The worst that could happen would be to fail to deal with the issue head on. That would leave trial courts and the bar guessing. It would also seem to encourage unduly the inefficient practice of reliti-

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[37] However, the answer to the question is by no means clear. *See, e.g.,* Constantino and Master, note 10, *supra.*

[38] *See generally,* L. CARTER, REASON IN LAW (2d Ed. Little, Brown & Co., 1984).

[39] *Bose,* note 14, *supra.*

[40] *See, e.g.,* the 1st Circuit decision in *Bose;* 692 F.2d 189, 195. *See also* note 13, *supra.* Nevertheless, credibility appears to have played a minor role in *Dennison; see* 774 F.2d, at 1090, fn. 14.

gating issues in a setting which would not have been appropriate for dealing with them in the first instance[41].

Should review more intensive than permitted under Rule 52(a) be somehow justified for one or more of the requirements for a valid patent, calling issues ones of "law" changes nothing and merely confuses the problem. Indeed, the "constitutional fact" doctrine would probably be a superior means to the end. It would highlight the need for intense appellate review of the record without concealing the essential nature of the issue; in short, it would serve the needs of both form and function[42].

Regardless of the outcome, everyone should appreciate an honest attempt to grapple with an issue which has been in limbo far too long. In *Dennison,* the CAFC has an opportunity to shape the very foundations of patent litigation. It is to be hoped that the court will see fit to rise to the occasion[43].

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[41] Again, this more than anything else seems to underlie Rule 52(a). *See also,* Preemption Devices v. Minn. Mining and Mfg. Co., 732 F.2d 903 (CAFC, 1984).

[42] However, it would seem to open the record as much to Supreme Court as to CAFC review. This may well have been what Justice Douglas had in mind in *A&P; see* notes 27-29 and discussion, *supra.*

[43] It would be fairly easy to evade the issue if the court were so inclined. Not only did credibility play a minor role in the bench trial (note 40, *supra*), but the CAFC could also ascribe reversal to purely legal errors. *See, e.g.,* 774 F.2d, at 1097, where it was held that the trial court had given too little weight to the presumption of validity.

PROTECTION OF INVENTIONS COMPRISING COMPUTER PROGRAMS BY THE EUROPEAN AND GERMAN PATENT OFFICES — A CONFRONTATION*

AXEL VON HELLFELD**

I. THE LEGAL POSITION

As preconditions for protection the European Patent Convention (EPC) and the German Patent Act (GPA) add to "novelty", "inventiveness" and "utilizability in industry" a further limitation of the range of patentable ideas, although it is not expressly stated in Articles 52-57 of the EPC and Sections 1-5 of the GPA, which materially control patentability. In the general view the term "invention" in Article 52(1) of the EPC and Section 1(1) of the GPA is to be understood to mean exclusively *technical* inventions. As regards the EPC this limitation readily follows from the Implementing Regulations, according to Rule 27(1)(b) of which the invention must relate to a *technical* field and according to Rule 27(1)(d) must deal with a *technical* problem. In the field of application of the GPA we can speak of a basis in customary law, which *Isay* took as his starting point as long ago as 1931[1].

It cannot therefore be disputed that Article 52(1) of the EPC and Section 1(1) of the GPA relate exclusively to *technical* inventions. The problem lies in what is meant by technology.

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[1] *Isay*, Patentgesetz und Gesetz betreffend den Schutz von Gebrauchsmustern, 5th Edition, 1931, Section 1 of GPA, Marginal Note 2 (Page 42).

This raises an extremely difficult and important problem for the harmonization of Patent Law in those States which are parties to the EPC, since after all the concept of technology also includes protection for goods utilizable in trade and industry which originate in a both technically and economically extremely rapidly developing branch of industry, electronic data processing. The main emphasis in this direction is of course being increasingly shifted from hardware to software, at least from the economic aspect[2].

Under Article 138 of the EPC a European Patent granted by the European Patent Office can be annulled on the basis of the Law of a State party to the Convention with effect in that State, *inter alia* if the subject matter of the European Patent is unpatentable under Articles 52-57 of the EPC. The concept of technology is therefore also contained in the acceptable grounds for annulment and the question urgently arises as to what happens in case of discrepancy between the concepts of technology evolved in the European Patent Office on the one hand and by the National Courts of Appeal on the other. In my view, a comparison of the examination procedure practiced by the European Patent Office and the German Patent Office shows that this situation has already occurred — i.e., it must be assumed that not a few European patents exist which would be found to stand on feet of clay if their legal validity should be examined by a German Annulment Senate on the principles concerning the concept of technology developed in Germany, on condition that such principles remain decisive for the German Courts.

The object of the present Paper is to demonstrate that there is such a discrepancy as regards the concept of technology as between the European Patent Office and the German National Courts, at least concerning inventions comprising computer programs.

This cannot be desired by legislators. It cannot be right that although the wording of the Act has been brought into line as regards the material preconditions for protection and the Examiners correctly apply the appropriate regulations and guidelines, the fate of a patent application depends on whether it is examined at the European Patent Office or the German Patent Office. The situation is that the European Patent Office will create the facts — i.e., grant patents in accordance with its own guidelines — in which the extremely traditional and complex verdicts of the German Courts concerning the concept of technology play practically

[2] Estimates to be taken seriously assume that in the year 2 000 the IBM Corporation, which at present files more patent applications than most companies in the world, will achieve the majority of its turnover no longer with hardware, but with software.

no role. A further thesis of this Paper is that this must not necessarily mean a loss.

In Article 52 of the EPC and Section 1 of the GPA the legislators removed programs for data processing installations from the range of patentable inventions only to the extent that a patent application or patent relates to such programs *as such*. The concept of technology marks the boundary line between applications the subject matter of which comprises entirely a computer program as such, and applications which comprise a computer program but in addition also relate to a patentable article connected therewith.

II. THE VERDICTS OF THE GERMAN COURTS

a) The separation of "the human mind" and technology runs like a thin red line winding variously through the verdicts of the German Courts over many years. Technology was viewed, and even today is still basically viewed, in contrast with the world of the mind[3]. This view reached its climax in the formula of "instruction to the human mind"[4]. In the more recent Decisions of the Federal Supreme Court this formula is passed over in silence, but nevertheless it is having an amazingly long life, and even today still frequently turns up in official letters from the German Patent Office. *Kolle*[5] calls it a "completely bungled monster of a definition, even linguistically". This is still too kind. The formula merely states that "pure instructions to the human mind" do not represent a technical idea and are therefore unpatentable. Of all things, that feature which is shared by all inventions, more particularly patentable ones, namely to be addressed to the human mind, was to be used to put non-technical ideas beyond the pale. In its logical structure this criterion corresponds to an attempt to try to distinguish between dogs and cats by finding that cats have four legs. Any patent claim can be rejected on the basis that it is an instruction to the human mind. At any rate there will be no patent with which an ape might do anything, not only because he cannot read. Nor does the adjective "pure" make the formula justifiable, since in the first place "pure instructions to the human mind" can probably be imagined in the purest of all "intellectual sciences", namely mathematics, and in the second place those disputed cases which

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[3] German Supreme Court in GRUR 1933, 289; cf. also *Nirk*, Gewerblicher Rechtsschutz, Stuttgart, 1981, Page 229.

[4] Re. the historical development cf., *Kolle*, GRUR 1977, 62, according to whom this formula lasted for 80 years.

[5] Footnote 4, *supra*, at page 62.

were rejected as non-technical never related to *pure* instructions to the human mind; an element relating to an object was always also necessarily involved, whether an accountancy voucher[6], a ski marking[7] or the like.

It seems that the clarification of such confusions might be assisted by a concept which has for many years played a central role in reflections on technology apart from the Patent Act, namely the concept of the artifact[8] [9]. According to *Ropohl*[10], three determining factors distinguish a simple, general concept of technology: a) the artifact itself, b) its production by a human being and c) its use in the framework of purposeful action[11]. If anything at all might ever have been gained from the formula of the "instruction to the human mind", it would only be the implicit knowledge, probably always tacitly in the formula, but not expressed in any way, that technology is impossible with at least one of the aforementioned defining elements a, b or c. Artifacts do not occur in a "pure instruction to the human mind".

b) The disappearance of the vexing "instruction to the human mind" from the verdicts of the highest Courts, however, has not yet settled the problems with the "human mind". The philosophical attitudes which are the only explanation of this wording continue to have effect, since according to the current verdicts of the Federal Supreme Court an idea is to be regarded as technical only if its result has an immediate effect on the outside world, without any interposition of a symbolical or corresponding intellectual instruction[12]. In the course of putting an invention into effect, therefore, it must not be necessary to register or intellectually process a symbol and arrive at a decision by means of the understanding in order to arrive at the purpose of the invention[13]. Something like the following is meant: sheets of paper with an arrangement of lines for bookkeeping; a form, whose surface is so subdivided by lines, margins, markings or areas, such as letters or colours that an instruction concerning use is conveyed to the user; or else the idea of providing the cover of a writing pad with the same system of lines as the sheets

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[6] German Federal Supreme Court in GRUR 1975, 549.

[7] *Benkard-Bruchhausen,* the German Patent Act, § 1, Marginal Note 49.

[8] *Ropohl,* Eine Systemtheorie der Technik, Munich 1979, page 31.

[9] *Rapp,* Analytische Technikphilosophie, Freiburg 1978, Page 57, 135 et seq.

[10] Footnote 8, *supra.*

[11] *Id.,* at page 131.

[12] Footnote 7, § 1, Marginal Note 44 with further references.

[13] German Patent Court decisions, Nos. 18, 170, 173.

inside, in order to be able to recognize this system of lines without looking into the pad — these are rejected as non-technical ideas[14], since to put them into effect the human mind must grasp symbolic contents of signification.

Such a separation of "mind" and "technology" is anthropologically untenable and is based on an impermissible reduction of what is technical to the artifact itself. However, by its nature technology is human *thinking and action,* the articles used or produced thereby being merely the expression thereof. A conception of technology reduced to things corresponds to an understanding of music consisting entirely in musical instruments and sound waves. *Borries*[15] correctly describes this widespread misunderstanding of technology as follows: "That which impresses itself on the eye concretely as technology is in actuality mere appearance, which allots to the products an autonomous existence". This is therefore an impermissible "reduction to things" of the concept of technology. An anthropologically in any way justifiable view of technology can only be based on the idea that the human mind is the creator, bearer and addressee thereof. However, if this is the case, any attempt to try to separate mind and technology in any manner whatsoever fails at the outset and can at best be rendered convincing only superficially. As long as technology has not reached the stage of full automation, which can only be in question when the use of human intellectual achievements and human intellect for performing the direct tasks of production has been completely replaced[16] — when technology has progressed "from replacing organs to replacing the organic" *(Arnold Gehlen)* — technology will remain unthinkable without the human being, who registers and processes "symbols", in short, who thinks. No measuring instrument is conceivable without a human being having to recognize and intellectually process a symbol, such as a number or the like, to grasp the measured result. Without such an interaction between human being and machine any idea is incomplete and unusable. However, the connection between the mind and technical artifacts goes even substantially deeper. In his readable, readily understood dissertation on the nature of the computer[17] *J. Weizenbaum* very correctly recognized tools and machines to be not only instruments for transforming a compliant earth, but also

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[14] Footnote 7, § 1, Marginal Note 48 with further references.

[15] *Borries,* Technik als Sozialbeziehung, Munich 1980, Page 11.

[16] Footnote 14, *supra,* at page 123.

[17] *Weizenbaun,* Die Macht der Computer, Frankfurt, a.M., 1977.

as tending towards symbols in themselves. They symbolize the activities which they render possible — i.e., their own use. An oar is a tool for rowing and represents the capacities of the rower in all their complexity. No one who has never yet once rowed can really see an oar as an oar. The manner in which someone regards a violin who has never yet seen anyone playing on the instrument differs widely from the perception which a violinist has thereof. A tool is always at the same time a model — for the capacity which is symbolizes[18]. It should just be realized how many "symbolic" steps of recognition are required to knock a nail into the wall with a hammer (or, which amounts to the same thing, to realize why an ape cannot do this). In contrast, it is childs play to use an accountancy vouncher suitably organized by lines, colours, etc., to facilitate bookkeeping work. At any rate, in this case there can be no question of any qualitative difference as regards the recognition and processing of symbols. As regards possible quantitative differences, only a somewhat more complicated, but undoubtedly technical entity such as, for example, a bicycle would have to be brought in, to cause such differences to disappear.

The historical intellectual tradition on which such separations of mind and technology are based, namely Cartesianism, has been described in many ways in contemporary Literature concerning the nature of technology[19]. *Descartes's* splitting of the world into *res cogitans* and *res extensa* of course took place at the beginning of the European natural science and technology, and in the opinion of many authors even formed their precondition, but nowadays it can no longer be regarded as a justifiable attitude, even though it has become so instinctive in European culture that it actually still largely stamps the general image of the "person skilled in the art".

c) The "Disposition Program" Decision of the German Federal Supreme Court[20] is of primary importance for this question of the patentability of inventions comprising computer programs. It is true that the Decision predates the legal Rules concerning the non-patentability of computer programs as such, but the grounds for the Decision are still decisive for purposes of limitation, since in them a general concept of technology is developed in contrast with supposedly non-technical algo-

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[18] Footnote 16, *supra*, at page 36, left-hand column.

[19] *Sachsse*, Anthropologie der Technik, Braunschweig, 1978, Page 87, 247; Footnote 9, Page 121; *Capra*, Das Tao der Physik, Berne 1985, Pages 19, 20; *Dreyfuss*, Die Grenzen kunstlicher Intelligenz, Konigstein im Taunus 1985, Pages 183 et seq.

[20] German Federal Supreme Court in GRUR 1977, 96.

rithms. The decision to be made was whether an idea for the solution of particular organizational problems, which can be put into effect with a known computer and whose core consists entirely of an algorithm, is of a technical nature or not. The starting point of the Decision was that definition of the concept of technology which was previously given with respect to the problem of the patentability of biological inventions, according to which *technology is an idea for action according to plan, using controllable natural forces, to achieve a causally surveyable outcome.*

According to *Nietzsche's* aphorism, only that can be defined which has no history. This realization is doubly fatal to attempts to define the concept of technology in the verdicts of the Courts. The patent system lives not on technology, but precisely speaking on the *history* of technology. If technology did not change, there would be no patent system. Taking as his basis the aforementioned aphorism by *Nietzsche, Rapp*[21] correctly remarks: "Strictly understood, it would follow from this that the concept of technology is absolutely impossible outside a time context; as a historical phenomenon, technology might be adequately defined only within the particular historical context. In actual fact, of course, technical objects are always produced and used in a concrete historical situation, which itself lies within a superordinate historical context. The complexity of the particular technical articles, the manner of their production and the actual consequences of technical action are so different in the individual epochs that one might be inclined to speak in this instance not of a unified phenomenon, but only of a family likeness (in the sense of *L. Wittgenstein*), such as exists, for example, between brothers and sisters". *H. Lenk*[22] also considers: "Technology is a conceptual orientational construct with its own many meanings, which does not cover in the sense of a categorization concept elements which might be characterized by an essential common feature". (He means by this not, for instance, any general definition of technique, which in general linguistic usage goes far beyond actual technology, but precisely the latter). However, there has been no lack of attempts to define technology in brief formulae. For example, *Ropohl*[23] and *Rapp*[24] give surveys of these. In view of the basic apprehensions quoted above, the maximum caution should govern any attempts to define technology from within itself, as

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[21] Footnote 9, *supra,* at page 31.

[22] *Lenk/Moser* (Editors), Techne-Technik-Technologie, Pullach near Munich, 1973, Pages 198-231.

[23] Footnote 8, *supra.*

[24] Footnote 9, *supra.*

it were, without wishing to develop the necessary conceptual instruments of the theory of knowledge, anthropology, the natural sciences and sociology. This caution is more particularly appropriate at a jumping-off point of technological development such as we are experiencing at present in informational sciences. For millennia technology was occupied with the handling and processing of material. For a few decades it has acquired a new quality with data processing, namely dealing with non-material magnitudes. Computers can not only "calculate" in the classical sense of the word — i.e., process numbers; the symbols which they process can stand for everything, even for features of the real world which are brought into relation with one another by programmed rules, in order to obtain new knowledge[25]). In addition to the classical artifact-type component, namely the hardware, the non-material nature of the object of this new technology creates completely new instruments of a non-material nature, namely software.

The legislators excluded data processing installation programs as such from patent protection, associating them instead with copyright protection, as of 1 July, 1985[26]. There are good and convincing reasons for this, based more particularly on considerations of convenience, practicability and economics, without the concept of technology having to be overworked in a dubious manner. Software companies cannot be expected to apply for a patent for every improved new program as protection against "intellectual theft", nor can patent offices be obliged to check programs for novelty and inventiveness. However, the ready inclusion of computer programs in copyright law applies *exclusively* to the programs as such, i.e., that consequence of instructions or commands which can be directly put to use by the computer. The actual creative core of informational technology, the algorithm — i.e., the structuring of a problem, on whose basis as a rule the program can first be written — does not come under copyright protection. Nor, however, does it come under the criterion "data processing installation program as such" which precludes patent protection. The idea[27] that an algorithm is a pure computation rule lacking a technical nature in general, since it represents a finished solution to a problem whose application does not require the use of natural forces, must be opposed, merely on the grounds that an algorithm can also form the basis for a computation program performable by a known computer, and can also provide an engineer directly with

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[25] *Dreyfuss,* Die Grenzen Kunstlicher Intelligenz, Konigstein im Taunus, 1985, Page 9.

[26] Federal Law Journal, Vol. I, 1985, 1137.

[27] *Schulte,* The Patent Act, § 1, Marginal Note 76.

constructional rules for a new data processing installation. One example of this is to be found in German AS 1 268 672, which has played a clarifying role in the more recent discussions inside the European Patent Office.

Now to return to the development of the concept of technology in German Patent Law. The definition of technology given above as an idea for action according to plan, using controllable natural forces, to achieve a causally surveyable outcome was quite inadequate in the "Disposition Program" Decision to exclude algorithms as non-technical. For this purpose two equally artful and dubious differentiations were also necessary, namely

a) a kind of "principle of directness" and

b) the proposition that the human mind was not one of the natural forces.

Re. a): The principle[28] of directness states that an idea can be regarded as technical only if it demands the *direct* use of controllable natural forces — i.e., any idea which is already complete before natural forces (probably better say artifacts) come into play counts as non-technical. This is based on the completely correct recognition that although as a rule software methods are provided for particular hardware, but they are otherwise created completely detached from the physical processes in the hardware. In other words: The systems analyst or programmer creating the algorithm or the program can work completely independently of the physical processes actually taking place in the computer when the program is carried out; an abstract "software" plane therefore exists, on which technical effectuation can be completely disregarded. Artifacts do not occur on this plane.

Doubts must be raised about the principle of directness. In the first place, it again expresses a concept of technology reduced to things. The question arises whether there is any justification whatsoever in splitting informational techniques into a field (hardware) belonging to technology, and the field (software) which does not belong to technology. This is not only because software and hardware form a symbiosis — one of them would be practically nothing without the other — but above all because in the last resort this separation is based on a genetic concept of invention. Even though in the "Disposition Program" Decision[29] the objection of a historicizing attitude was rejected on the grounds that the finished invention was considered, nevertheless a technical outcome,

[28] Cf. also Footnote 4, *supra,* at page 62.

[29] Footnote 19, *supra,* at page 98, left-hand column, last paragraph but one.

namely the obtaining of required target information due to the processing of starting information by machine, is broken up into two acts. Such a concept of invention must be described as genetic, since it derives from the *process* of knowledge, which leads to the outcome, but not on the result alone. The separation of data processing by a machine in such a way into a first act of realization and formation of knowledge, which is purely intellectual — i.e., manages without artifacts —, and a second act which uses an artifact (computer) can basically be applied without qualitative difference to "classical" inventions also. In this respect *Rapp*[30] quotes a number of authors from the early period of the patent system, to which only a little remains to be added. According to *du Bois-Reymond*[31], a distinction must be drawn between activity and the result of inventing. The creative intellectual achievement lies exclusively in the nature of recognizing; the recognized finished invention itself is, as a material formation, merely an in itself mindless combination of material elements. Not only were the invention of the axe, the steam engine or the cmputer preceded by an idea thereof[32], without its being necessary to think of a concrete form thereof, but many patent applications have had a similar genesis. The objection that the situation with software/hardware is qualitatively different, since in that case the outcome does not necessarily stand and fall with the use of natural forces[33] is not very convincing, since the insertion that the rules for operating a computer could be put into effect not with a machine, but manually using paper and pencil, is just as convincing as the suggestion that a nail should be knocked into a wall with the bare fist instead of a hammer. Anthropologically there is no very great basic difference between a hammer and a computer. One of them takes the place of the organ "fist", which is defective for the required purposes, while the other takes the place of the organ "brain", which is overtaxed by the information offered for processing. One of the most important contemporary arguments for the understanding of the phenomenon of technology, namely the anthropology of *Arnold Gehlen*[34] has precisely the advantage that in it the bodily and intellectual existence of human beings do not fall apart without relation. The program for using a hammer (. . . grasp the handle,

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[30] Footnote 9, *supra*, at pages 11, 12.

[31] *Du Bois-Reymond*, Erfindung und Erfinder, Berlin 1906.

[32] Footnote 14, *supra*, at pages 53, 67.

[33] Footnote 19, *supra*, at page 98, left-hand column.

[34] *Gehlen*, Der Mensch, 1940.

direct the striking surface against the nail, perform the stroke, . . .) is of a material nature in accordance with the object of this tool. The program for operating a computer is non-material, in accordance with the matter which it processes. To wish to see a basic difference in this might be simply due to having overlooked technical advance.

Re. b): First of all a comment on the term "natural forces" may be permitted. In this context, so to speak to make clear the wide range of the personal view, it is repeatedly emphasized that the term also covers "chemical, biological, etc." forces[35] [36]. After all, the reference is probably to modern natural science and therefore technology in which, however, the concept of force is *occupied.* It is one of the most astonishing results of natural science, and has been for over 50 years, that all phenomena occurring with in the framework of animate and inanimate material can be ascribed to not more than four *forces:* Strong and weak interaction, gravitation and electromagnetic force. Strong and weak interactions occur only in the field of subnuclear elementary particles — i.e., are at present without meaning for chemistry, biology and technology (apart from nuclear technology). All other natural and technological phenomenon, from gene techniques through microbiology to the numerically controlled lathe, are caused by a single kind of force, namely electromagnetic force. Where this is not the case, parapsychology finds its field of operation. The designation "natural force" is fully adequate; any idea of the world having biological or chemical "forces" is therefore not quite up to date with modern times.

The definition of technology given above as an "idea for action according to plan . . ." is inadequate to exclude ideas such as musical compositions, mathematical theories, etc., which plainly do not belong to technology, since if the human understanding (the brain) is considered as operating through natural forces, almost every idea comes under this definition, more particularly as the "causally surveyable outcome" certainly does not need to be of a technical nature, but can also be, for example, aesthetic or commercial or relate to business management[37]. However, a definition of technology which also includes operettas can be excluded at once as not particularly usable. This weakness of the definition can be gathered from the fact that it overlooks an essential deter-

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[35] Footnote 19, *supra.*

[36] Footnote 4, *supra.*

[37] *Benkard-Bruchhausen,* The Patent Act, § 1, Marginal Note 44; cf. also Guidelines C IV, 2.2.

mining aspect of technology, namely the necessary participation of an artifact. The necessary addition, therefore, that "human intellectual activity does not belong amongst the controllable natural forces in the sense of the definition" has a very off-putting effect even at first glance. However, the problems of this argument certainly do not lie where they are sometimes supposed to lie[38] (in the fact that even the brain perhaps functions on a basis of physics, chemistry and biology), but rather in the fact that the argument gives an answer to a, if not *the* main question of 2000 years of Western philosophy, more exactly the theory of knowledge, namely whether and to what extent what we recognize and understand of the world, Nature . . . is determined, stamped, conditioned by the human apparatus of knowledge.

In fact, the problem of human knowledge can be brought to a head by the question whether and how the apparatus of understanding belongs amongst the natural forces or not. Attempts to give an answer over the wide spectrum between idealism and materialism fill whole libraries. Clarification from the highest Courts was therefore overdue. It is not very surprising that the decision was given fairly clearly in favour of dialectical materialism. The problem of knowledge is not to be discussed here. Instead, it should be enough to give a rough explanation of the problems of any statement concerning the relation between the human understanding and "natural forces" in the light of modern physics. When during the first decades of the present century the subject of human knowledge approached the orders of magnitude of the molecule and the atom — i.e., took leave of the everyday world daily encountered by our apparatus of knowledge — contradictions occurred which threw up the above problem of knowledge in all its acuteness. These contradictions are, for example, the fact that particles of atomic dimensions, such as an electron, must be understood both as a corpuscle (i.e., a small ball with mass and velocity) and also as a wave (i.e., a distribution of conditions in space and time). However, the human understanding cannot imagine an object which is a corpuscle and a wave at one and the same time. Similar considerations apply to light. Another notable fact is *Heisenberg's* relation of imprecision, according to which certain magnitudes, such as the impulse and place of a particle, cannot be measured simultaneously with any required degree of accuracy, this having nothing to do with the inaccuracy of the instruments, but lying in Nature. The consequences for the theory of knowledge arising from the

[38] German Patent Court Decisions, 18, 170. 174 and also Footnote 4.

theory descriptive of these phenomena, quantum mechanics, led in the "Copenhagen interpretation" of *Bohr, Heisenberg* and others, widely recognized outside Marxism, to conclusions to the effect that the human apparatus of knowledge — i.e., the human understanding — cannot be separated from natural phenomena[39]. Or, in the words, of *Heisenberg:* "We cannot talk about Nature without speaking about ourselves". Not only technology, but even Nature is unthinkable without the "human mind", no matter how difficult it is for "common sense" to realize this.

In the added words ". . . in the sense of the definition" do not give justification to the statement "the human understanding does not belong amongst the natural forces". It might rather be asserted that "the sun revolves around the earth for the purposes of the Patent Law". What a statement, "the human understanding is not included amongst the natural forces" in a Court Decision 2 000 years after Plato and 200 after Kant!

Of course, when interpreting legal concepts a judge is not tied down to views developed in natural sciences, technology or philosophy. However, if statements are made concerning the nature of technology, something which basically forms the subject matter of certain sciences, such as the theory of knowledge, anthropology, sociology, etc., it may be expected that the methodical bases of the definitions of concepts are stated — i.e., whether, for example, the concept of technology is determined or relativized on the basis of considerations resulting from the purpose of the Law. However, such reflections must not yet be recognized even as an approach. On the contrary, the concept of technology develops freely arising from itself, something which in the last resort means nothing more than that very definite philosophical views prevail. The question as to whether a new kind of phenomenon, such as software, belongs to technology or not cannot be answered by comparing that phenomenon with the steam engine. This is precisely the meaning of the above quotation from Nietzsche.

III. EXAMINATION GUIDELINES AT THE EUROPEAN PATENT OFFICE

a) After all this it is a relief to find neither the "human mind" nor an attempt to define the concept of technology in the examination Guidelines of the European Patent Office, or in the Decisions of the Appeals Chambers hitherto available.

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[39] A widely understandable, pregnant presentation (even apart from the other comparisons which he makes between the thought of the West and the Far East) is given by *Capra* in Das Tao der Physik, Berne 1985, Pages 131 et seq.

"The Examination Guidelines of the European Patent Office" published by the European Patent Office (referred to below as the Guidelines for short) have two purposes: On the one hand they are intended to give the Examiners working at the European Patent Office guidance in the interpretation of the provisions of the Law, while on the other hand their purpose is to inform the public of such interpretations. Since the Appeals Chambers of the European Patent Office, which are of course in no way tied down to the Guidelines, have not hitherto had an opportunity of expressing a view on a large number of problems, the Guidelines have increased importance, at least in the early phases of the European Patent System. The views expressed in the Guidelines will be considered in what follows. It should be expressly emphasized that these views will be subjected to reexamination by the Appeals Chambers in the light of suitable cases. Nor can it be sufficiently emphasized that these are views which are certainly not undisputed inside the European Patent Office, a fact which causes little surprise in view of the different traditions from which the Examiners come. Things are still in flux, and the Appeals Chambers are not to be envied their task of discovering in this respect a uniform line which will also be acceptable to the various national Courts.

A comparison of the Guidelines with the verdicts of the German Courts discloses a basically different approach: While the verdicts of the German Courts traditionally lose themselves in extremely problematic disquisitions concerning the relations of mind, Nature and technology, the Guidelines completely abandon such considerations and express an extremely pragmatic viewpoint. No abstract definition is adduced to mark the boundary line between technical and non-technical inventions, but attention is essentially drawn to examples. In the new version, valid from March, 1985 onwards, the Section on "Inventions" (Art. 52 [1]) has been substantially revised, more particularly with regard to inventions in connection with data processing installation programs (C IV, 2.1 to 2.3). Once more it is confirmed that an invention in the sense of the European Patent Convention must have a technical character. The Guidelines practice a wise reservation as regards the question of whether computer programs as such have a technical character. This question is not merely of theoretical interest, since if a computer program as such were to be regarded as being of a technical nature, Art. 52(2)(c) concerning data processing installation programs would have to be regarded as an exceptional provision, and therefore probably also have to be narrowly interpreted in accordance with the principles in force for the application of the European Patent Convention. The system of the Law actually

argues in favour of this interpretation, since if the definition of an invention in Art. 52 [1] should in any case imply the technical nature of the invention, the listing of data processing installation programs as such would be superfluous in Art. 52(2)(c) and (3)(d), if they were then to be regarded as non-technical.

The first sentence of the revised Guidelines lying at the basis of the definition of an invention reads:

> An invention must have both a concrete and also a technical character (C IV, 2.1).

The demand for a concrete nature can probably be expressed very simply: An artifact — i.e., something created by human beings — must be produced or used. The term "artifact" is to be understood in its sense of something created by human beings, and therefore also covers imitations of things existing in Nature, for example, a process for the production of a substance known in Nature.

As regards the problem of the patentability of applications comprising computer programs, it must first be pointed out that in such cases the actual contribution of the application towards the state of technology must be extracted (C IV 2.2). This ought to be indisputable and also corresponds to the principles developed in this respect in the verdicts of the German Courts[40]. It is therefore no use to strengthen the claim of a patent with known hardware features, since the examiner is to take as the basis for his assessment the technical content of what is new, but not of what is known. If what is new entirely comprises a computer program as such, Art. 52(2)(c) comes into force immediately and the application must be rejected.

When complying with this regulation, the question must probably first be answered as to what a "computer program as such" is. The lowest common denominator, the core of all computer programs must be discovered. Any idea which does not go beyond this will inevitably fail under Art. (52)(2)(c). A data processing installation program as such must be understood to mean at least a group of instructions which are charged into a computer and therein cause the computer to accept and process such data, and output an operational result in the form of information or a signal. Any idea of which nothing more can be said than the foregoing undoubtedly comes under Art. (52)(2)(c).

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[40] Footnote 20, *supra.*

If, in contrast, the result of a program in combination with a data processing installation is that the installation operates differently from the technical aspect, the combination may be patentable (C IV, 2.2).

In another passage (C IV, 2.3 under "Data Processing Installation Programs") the Guidelines approach the same problem equally carefully with a different wording:

> If the subject matter claimed relates exclusively to the program-controlled internal operation of a known data processing installation, it can nevertheless be regarded as patentable, if it produces a *technical effect.*

The German word "Effekt" (= effect) is liable to misunderstanding: In the undisputed German and European view the main aspect is not the *"Wirkung"* (= operative impression effectuated) of an invention, which can lie, for example, in the aesthetic or commercial (i.e., non-technical) field (Guidelines C IV, 2.3 under "Creations of Aesthetic Forms", cf. also Footnote 19). However, in German "Effekt" means almost the same thing as "Wirkung" (= effect). The formula of a "technical effect" frequently occurring in the Guidelines and also in the discussions inside the European Patent Office which preceded their new version is therefore not to be taken to mean that the main point is the purpose of the invention, but the effect must concern the data processing installation itself or other features essential to the embodiment of the invention. Something must probably take place with the installation which goes beyond the inputting and processing of data and outputting of required information or a signal. This is illustrated as follows in the Guidelines (C IV, 2.3):

Example 1:

As an example consider the case of a known data-processing system with a small fast working memory and a larger but slower further memory. Suppose that the two memories are organized under program control, in such a way that a process which needs more address space than the capacity of the fast working memory can be executed at substantially the same speed as if the process data were loaded entirely in that fast memory. The effect of the program in virtually extending the working memory is of a technical character and might therefore support patentability.

The first thing which follows from this example is that the "technical effect" need in no way consist in the design of the hardware nor call for any alteration thereof. The exemplary invention lies entirely in the software; all that is done is to charge a new program into the known data processing installation.

On the other hand, it seems to follow from this Example that it must be possible to determine the "technical effect" or, in the other wording, the different kind of operation from *certain* features of the hardware. It therefore seems not to be enough if the effect can be subsumed under the general function of a computer, namely to receive and process data and to deliver the result of processing in the form of either information or a control signal (e.g., for another machine). In this sense the view taken at the European Patent Office is no doubt to be taken to mean that any program whose sole effect is to shorten the computation time of a known data processing installation cannot be regarded as patentable.

b) The question arises whether the above example 1 might also be patentable with the application of the corresponding Federal Patents Court Decisions "Disposition Program"[41], "Outlines of bodies Moving in Fluids"[42] and "Rolled Bar Division"[43]. The official guiding principle of the first of these Decisions, according to which patents cannot be granted to organizational or computing programs for electronic data processing installations for the solution of operational disposition problems, in the application of which *use* is made of a data processing installation of known construction in *accordance with its purpose* clearly leads to the above example 1 not being patentable. This is in no way altered by the fact that the Decision was promulgated before the adaptation of the German Patent Act to the European Patent Convention, since the Decision is based on the idea that such algorithms or programs had *no* technical character and were therefore not to be regarded as patentable inventions. However, the concept of technology cannot be altered by an amendment of the Law.

When applying the aforementioned official guiding principle of the "Disposition Program" Decision the main point as regards the present discussion is obviously not that the program was intended for the "solution of problems of operational disposition". The decisive factor is whether the computer is *used in accordance with its purpose* (cf. also Footnote 39). There can probably be not doubt that in the above example 1 the computer is used in accordance with its purpose, since it can of course hardly be seriously asserted that it would *not* be used in accordance with its purpose. No help is to be found in the formula of use "in accordance with purpose" forming the common core of the official guiding principles of the above German Federal Supreme Court Decisions. Neither at the

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[41] *Id.*

[42] GFSC in GRUR 1977, 657.

[43] GFSC in GRUR 1981, 39.

time of their creation nor probably today could anyone imagine anything amounting to use not in accordance with purpose, apart from curiosities such as the use of a computer for room heating due to its power consumption, or the use of a pocket calculator as a paper weight. The expression "used in accordance with purpose" is no doubt also unfortunate, since it relates rather to the question of inventiveness than to the question of being of a technical nature.

However, the arguments in the "Disposition Program" Decision have very many layers. On another plane the above example 1 might very well satisfy the principle of directness, since the invention "stands and falls" with the two stores. However, if the Decision is interpreted like *Kolle*[44], no doubt can remain that an idea according to the above example 1 is unpatentable under the principles concerning the concept of technology developed in the verdicts of the German Courts, since according to him no "new instructions for use" of a computer would be present, more particularly if what was achieved was "a more advantageous utilization of the store due to skilful programming".

A further example from my own practice may make the different positions even clearer:

Example 2

This relates to an apparatus and process for the secret protection of digital data exchanged via a line between two stations. The data are to be so encoded that if the line is tapped by unauthorized persons the code is as difficult as possible to crack. The apparatus comprises a line system to each end of which a computer is connected as a transmitter/receiver. This hardware is fully known. It is also known to perform the encoding of the data to be transmitted in accordance with particular fairly complicated mathematical methods. The invention now proposes within the framework of these encoding mathematics a very definite group theory process, which offers certain advantages as regards the security of the encoding. The characterizing part of the main claim considered allowable by the Examiner amounts entirely to a corresponding mathematical statement.

In this case the European Patent Office Examiner has rightly not yet even raised the question as to whether a technical invention is present. The idea of the invention is not to be understood as a "computer program as such", even though corresponding programs are required to put the encoding measure into effect.

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[44] Footnote 4, *supra* at page 73.

According to the already quoted German Federal Supreme Court Decisions such an idea must be classified as non-technical, since the invention is already completed before, to use the words of the Federal Supreme Court[45], the "field of the technical is entered". The invention "does not stand and fall" with the use of the hardware mentioned, since even a human calculator can perform the encoding in perhaps 100 years. In this case, therefore, the demanded directness of the use of controlled and natural forces is not present.

Now two fictive examples will be constructed and compared in relation to the principles adopted by the European Patent Office on the one hand and the German patent Office on the other. One of the most important development fields of informational science at the present time is the so-called "artificial intelligence"[46]. This term means the effort to solve by machines problems which demand capacities in the sense of human intelligence. One of the most important fields of application is so-called "object recognition" — i.e., the analyzing of images by means of the machine in such a way that, for example, different objects are "recognized". Basically, such a machine comprises a camera (typically with a solidstate-image sensor) and a connected computer. The system is to be able, for example, to distinguish screws from nails. The solution of this problem is essentially a matter of pure software. Although development work in this direction is being carried on at a very heavy cost, the solutions known to at present are probably still not very satisfactory. However, it can be expected that satisfactory program solutions will be discovered in the near future. In those solutions known hardware will be used. The core of the solution will lie in the algorithm, since otherwise exclusively old, familiar photographic techniques are used. Of course, the camera-computer combination is also no novelty.

Since it can probably hardly be asserted that use according to purpose was *not* made of the known data processing installation employed in such an invention, application of the principles derived from the GFSC "Outlines Of Bodies Moving In Fluids" leads to denial of patentability. Nor is this a case of new instructions for the use of the computer, since attempts to perform object recognition by the computer-camera system are no novelty, and the invention lies, as already stated, exclusively in the algorithm.

In my view, the application of the European Patent Office Guidelines might lead to a completely different result. After all, it must probably

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[45] Footnote 38, *supra* at page 658, right-hand column, middle.

[46] A survey is given by *Retti et al.* in "Artificial Intelligence", Stuttgart, 1984.

be described as a "technical effect" if a machine can distinguish a lemon passing by from an apple.

Another entity from the field of so-called "artificial intelligence" is represented by "expert systems"[47]. Applications of this kind have already been filed with the Patent Offices. An "expert system" is the electronic simulation of a human expert who, when faced with a concrete problem, finds a solution by logical conclusions derived from his or her knowledge. An electronic expert therefore comprises a basis of knowledge (information storage) and a logical-conclusion-drawing machine, which as a rule consists of known hardware. It is a highly controversial question whether in the logical-conclusion-drawing methods to be employed use is (intended to be) made of methods corresponding to human thinking or not[48]. As long as human thinking itself is not understood, it will be difficult to prove that a logical-conclusion-drawing technique is not artificial, but merely copied from nature. It seems as if the fifth computer generation now developed can simulate human decision-making processes (not necessarily thinking processes) with a highly parallel architecture, a computing speed of 100 million logical operations per second, such an operation possibly corresponding to 1 000 conventional computer commands and with a logical programming system. The qualitatively novel feature of such expert systems is that they show a certain learning capacity — i.e., can independently work out rules free from contradiction for themselves. After all, would this really not be more than "use in accordance with purpose"!

If even the European Patent Office Examiners occupied with these problems do not find it easy to discover a concept of technology which draws practicable limits in this respect, the German Patent Office Examiners are not to be envied their task. In my view, there is only one way to avoid entanglement in contradictory limiting definitions and therefore general legal uncertainty, namely to interpret as narrowly as possible the terms of Art. 52(2)(c) of the EPC and Section 1 (2) No. 3 of the GPA concerning data processing installation programs, and to keep the concept of technology as open as possible, but at any rate, if a definition of the concept should prove inevitable, to avoid statements concerning the participation of the human mind in technology.

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[47] *Id.*, at pages 74 et seq.

[48] Cf. on the one hand, for example, *Hofstadter:* "Godel, Escher, Bach", Stuttgart 1985, who assumes that human thinking takes place as in a computer and vice versa; a different view is taken by *Dreyfuss,* cf. Footnote 22.

JUDICIAL APPROACH TO COPYRIGHT INFRINGEMENT

ARLENE C. HALLIDAY*

I. INTRODUCTION

> In truth, in literature, in science and in art, there are, and can be, few, if any new and original thoughts. Every book in literature, science and art, borrows, and must necessarily borrow, and use much which was well known and used before. No man writes exclusively from his own thoughts, unaided and uninstructed by the thought of others. The thoughts of every man are, more or less, a combination of what other men have thought and expressed, although they may be modified, exalted, or improved by his own genius or reflection. If no book could be the subject of copyright which was not new and original in the elements of which it is composed, there could be no ground for any copyright in modern times, and we should be obliged to ascend very high, even in antiquity, to find a work entitled to such eminence. Virgil borrowed much from Homer; Bacon drew from earlier as well as contemporary minds; Coke exhausted all the known learning of his profession; and even Shakespeare and Milton, [are] found to have gathered much from the abundant stores of current knowledge and classical studies in their days.[1]

The Constitution provides that Congress shall have the power "to promote the progress of science and useful arts, by securing for limited time to authors and inventors the exclusive right to their respective writings and discoveries."[2] To further the progress of science and useful arts, Congress has passed copyright legislation which affords copyright protec-

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[1] Emerson v. Davies, 8 Fed. Cas. 615, 619 (No. 4436) (D. Mass. 1845) reprinted in Yankwich, *Intent and Related Problems in Plagiarism,* 33 S. Cal. L. Rev. 233, 236 (1960).

[2] U.S Const., Act I, § 8, Cl 8.

tion to original works of authorship.[3] However, the term "original works of authorship" is purposely left undefined by Congress. The courts have interpreted an original copyrighted work to mean that the particular work owes its origin to the author. The work requires independent creation by the author, but not any large measure of novelty, ingenuity, or esthetic merit.[4] Originality is the fundamental element to secure copyright protection regardless of the form of the work.[5]

The main focus of this paper is on infringement — what it is and when it occurs. It will distinguish copyrightable expression from the non-copyrightable idea. Finally, the paper will examine works of fiction and non-fiction. It will compare the method of analysis used by the courts in each type of work, in order to determine whether an allegedly infringing work is an original work of authorship.

II. STATUTORY BACKGROUND

Copyright law gives to the owner of a copyright the exclusive rights of reproduction, adaption, publication, performance, and display.[6] This bundle of rights is cumulative and may overlap. An infringement occurs when any of these rights are violated.[7]

This standard is very broad and without some type of limitation, would produce undesirable results. For example, a copyright could be obtained on a cheaply manufactured plastic statue of a horse. Once ownership

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[3] Citations in this paper, unless otherwise indicated are to Title 17 of the U.S. Code (1984). § 102(a) (1976).

[4] Alfred Bell & Co. v. Catalda Fine Arts, Inc., 191 F.2d 99 (2d Cir. 1951).

[5] 1 M. NIMMER, NIMMER ON COPYRIGHT, § 2.01, at 2-5 (1984).

[6] Section 106 — Exclusive Rights in Copyrighted Works Subject to §§ 107 through 118, the owner of the copyright under this title has the exclusive right to do and authorize any of the following:

(1) to reproduce the copyrighted work in copies or phonorecords;

(2) to prepare derivative works based upon the copyrighted work;

(3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease or lending;

(4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audio visual works, to perform the copyrighted work publicly; and

(5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphics, or sculptural works including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly.

[7] Act of Oct. 19, 1976, Pub. L. No. 94-533, 1976 U.S. Code Cong. & Ad. News (90 Stat.) 5669 [hereinafter cited as Pub. L. No. 94-533].

of the copyright is established, other manufacturers of statues of horses would face the risk of being an infringer if their statues were found to be substantially similar and access could be shown.

III. IDEA/EXPRESSION DICHOTOMY — LIMITATION ON COPYRIGHT

Protection for these exclusive rights is given to the expression of an idea and not to the idea itself.[8] In no way does copyright confer an absolute monopoly similar to a patent.[9] When Congress drafted the copyright legislation, it intended to maintain the basic dichotomy between an idea and the expression of that idea.[10]

Section 102 of the Copyright Act states that a copyright protects the means of expressing the idea, and not the idea itself.[11] If the same idea can be expressed in a number of different ways, a number of copyrights may result, and no infringement will occur.[12]

In an infringement suit, the courts face the problem of having to determine whether there has been copying of the expression rather than just the idea itself.[13] The court must separate the non-protected idea from the protected expression.[14]

Judge Learned Hand in *Nichlos v. Universal Pictures Corp.*,[15] stated that the cases are concerned with the line between expression and what is expressed. When there is word for word copying there is no problem with finding infringement. Judge Hand was more concerned with the situation when the plagiarist does not take out a block in situ, but an abstraction of the whole. Judge Hand formulated the famous "abstrac-

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[8] Mazer v. Stein, 347 U.S. 210, 217 (1954).

[9] Dymow v. Bolton, 11 F.2d 690, 691 (2d Cir. 1926).

[10] Pub. L. No. 94-533, *supra* note 3, at 5670.

[11] § 102(b).

[12] Dymow v. Bolton, 11 F.2d at 691.

[13] Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp., 562 F.2d 1157, 1163 (9th Cir. 1977).

[14] Reyher v. Children's Television Production, Inc., 533 F.2d 87, 91 (2d Cir.) *cert. denied*, 429 U.S. 980 (1976).

[15] Nichlos v. Universal Pictures Corp., 45 F.2d 119 (2d Cir. 1930) *cert. denied*, 282 U.S. 902 (1931).

tions test" in attempting to distill the non-protected idea from the protected expression:

> Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his ideas to which, apart from their expression, his property is never extended.[16]

IV. INFRINGEMENT LITIGATION

A. *Standard of Proof*

The Copyright Act gives no clear guideline as to when an infringement occurs. It only states that an infringement occurs when any of the exclusive rights of reproduction, adaption, publication, performance or display are violated. Congress left it to the courts to determine when an infringement occurs. The judicial test for infringement is whether the infringing work is a copy of the copyrighted work, and whether the elements that have been taken are protected by the copyright.[17]

Evidence of copying may consist of: (1) the defendant's admission that he copied, or circumstantial evidence of access[18] to the copyrighted work; and, (2) substantial similarities as to the protectable material in the two works. If there are no similarities, no amount of evidence of access will suffice to prove copying. If there is evidence of access and similarities exist, then it is a fact question whether the similarities are sufficient to prove copying. The burden of showing access to the copyrighted work is on the plaintiff. If evidence of access is absent, then the similarities must be so striking as to preclude the possibility that the plaintiff and defendant independently arrived at the same result.[19] If copying is established, only then does the second issue arise — whether it was an unlawful copying.

B. *Defenses*

There are a number of defenses that can be used in a suit alleging literary piracy. Generally they are that: (1) the allegedly infringing work was not a copy of nor improperly derived from the other; (2) the work

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[16] *Id.* at 121.

[17] Arnstein v. Porter, 154 F.2d 464, 468 (2d Cir. 1946).

[18] Bradbury v. Columbia Broadcasting System, 287 F.2d 478, 479 (9th Cir.). 368 U.S 801 (1961) defines access to mean not merely the opportunity to have read or known the contents of a work, it means actual knowledge thereof.

[19] Arnstein v. Porter, 154 F.2d at 468.

may have been at some level inspired by the first but is not sufficiently similar to be infringing; or, (3) the use made of the earlier work was proper. The defense of a proper use of an earlier work can be further divided — the use was not one forbidden by section 106, the use was permitted by section 102(b), or the use was permitted under the "fair use" doctrine[20] as defined in section 107.[21]

If the defendant can show that the allegedly infringing work is not a copy of the copyrighted work but a copy of some other work, and bring in a third work as a kind of control, the defendant can then show there is more of a resemblance between the control and the defendant's work than between either of the two and the plaintiff's work.[22] A case in which this defense was used is *Continental Casualty Co. v. Beardsley*,[23] a cross-appeal which sought declaratory judgment that Beardsley's copyright on a blanket bond was invalid. Beardsley counterclaimed alleging infringement by Continental of his valid copyright.[24]

Beardsley did not succeed in proving infringement. He offered forms which had been used by the Pullman Company contending that the Pullman forms infringed his forms. He alleged that Continental had infringed Pullman and, indirectly, Beardsley. Beardsley asserted that the burden then shifted to Continental to show that Pullman did *not* infringe Beardsley. The court did not decide whether this was sound law but held

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[20] § 107. Limitations on Exclusive Rights:
Notwithstanding the provisions of § 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 purposed such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), 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, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(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.

[21] Field, *Brief Survey of and Proposal for Better Reconciliation of the Options. . .*, 26 IDEA 57, 81-82 (1985).

[22] Ideal Toy Corp. v. Sayco Doll Corp., 302 F.2d 623 (2d Cir. 1962) (Clark, J. dissenting).

[23] Continental Casualty Co. v. Beardsley, 253 F.2d 702 (2d Cir.) *cert. denied*, 358 U.S 816 (1958).

[24] *Id.* at 822.

that, although the Continental and Pullman forms were very similar, the Beardsley form was sufficiently different from both to negate infringement.[25]

A defendant can show instead that his work may have been inspired by the first work. This type of defense was used in *Donald v. Zack Meyer's T.V. Sales & Service*.[26] O.W. Donald, the copyright claimant, sought copyright protection for a common legal form. Moore Business Forms, one of the defendants, claimed that Donald's copyright was invalid for lack of originality. The Fifth Circuit court stated that Donald, either consciously or unconsciously, used numerous form books while drafting the "Agreement". The court held that ". . . Donald's form is nothing more than a mosaic of the existing forms, with no original piece added. The Copyright Act was not designed to protect . . . negligible efforts. We reward creativity and originality with a copyright but we do not accord copyright protection to a mere copycat."[27]

Another defense of proper use is that the material is uncopyrightable in the sense that the subject matter is very narrow and that there is only one way or a limited number of ways of expressing the idea. In *Morrissey v. Proctor & Gamble Co.*,[28] Morrissey was the owner of a set of rules for a sales promotional sweepstake contest involving social security numbers of the entrants. Morrissey alleged that Proctor & Gamble infringed by copying, almost precisely, Rule 1. Since the subject matter was so narrow, the court found that by permitting the copyrighting of forms, it would exhaust all possibilities of future use of the substance. The court held that the subject matter would be appropriated by permitting the copyrighting of its expression.[29]

C. *Works of Fiction*

When a court analyzes the facts in an infringement suit of a fictional work, one of the first things it scrutinizes is the nature of the relationship, if any, between the plaintiff and the defendant. If both parties had prior dealings with each other concerning the sale of the copyrighted work, the court will make a finding of access to the plaintiff's work by the defendant.

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[25] *Id.* at 819.

[26] Donald v. Zack Meyer's T.V. Sales & Service, 426 F.2d 1057 (5th Cir. 1970) *cert. denied*, 400 U.S. 997 (1971).

[27] *Id.* at 1059.

[28] Morrissey v. Proctor & Gamble Co., 379 F.2d 675 (1st Cir. 1967).

[29] *Id.* at 177.

The court will next examine the general theme or plot of each of the works. General themes are not copyrightable, and can be copied by the defendant. If there are any similarities the court will do a critical review of all the similarities and differences between the two works. In order to determine substantial similarity the court will look to the incidences and their sequence that make up the story, and the development and interplay of the characters. The court will not find any infringement in the taking of a general theme — but in taking its particular expression through similarities of treatment, details, scenes, events and characterization. The following two cases illustrate the pains a court goes through to determine whether an infringement of a copyrighted fictional work has occurred.

The first case is *Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corporation.*[30] Sid & Marty Krofft created the H.R. Pufnstuf television show for the NBC television network. The series included several fanciful costumed characters, as well as a boy named Jimmy, who lived in a fantasyland called "Living Island", which was inhabited by moving trees and talking books. The television series became extremely popular and generated a line of H.R. Pufnstuf products and endorsements.[31]

Marty Krofft was contacted by a representative from Needham, Harper & Steers, Inc., an advertising agency. Needham was attempting to get the advertising account of McDonald's hamburger restaurant chain, and wanted to base a proposed campaign to McDonald's on H.R. Pufnstuf characters. It inquired if the Kroffts would be interested in working with Needham on a project of this type. Needham and the Kroffts were in contact by telephone six or more times.[32]

Needham acknowledged the need to pay the Kroffts a fee for preparing artistic designs and engineering plans. Shortly afterward Marty Krofft telephoned Needham only to be told that the advertising campaign had been cancelled. In fact, Needham was awarded the McDonald's account and was proceeding with the McDonaldland project. Former employees of the Kroffts were hired to design and construct the costumes and sets for McDonaldland. Needham also hired the same voice expert

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[30] Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp., 562 F.2d 1157 (9th Cir. 1977).

[31] *Id.* at 1161.

[32] *Id.*

who supplied all of the voices for the Pufnstuf characters to supply some of the voices for the McDonaldland characters.[33]

Prior to the advent of the McDonaldland advertising campaign, the Kroffts had licensed the use of the H.R. Pufnstuf characters and elements to the manufactures of toys, games, lunch boxes, and comic books. In addition, the H.R. Pufnstuf characters were featured in Kellogg's cereal commercials and used by the Ice Capades. After the McDonaldland campaign, which included the distribution of toys and games, the Kroffts were unable to obtain new licensing agreements or extend existing ones. In the case of the Ice Capades, the H.R. Pufnstuf characters were actually replaced by the McDonaldland characters.[34]

In this suit, the Ninth Circuit court expanded the test for infringement. It stated that in addition to ownership of the copyright and access to the copyrighted work, there must be substantial similarity, not only of the general ideas but of the expressions of those ideas as well. The court stated that the test for similarity of idea and similarity of expression is one of fact, and that the determination of when there is substantial similarity between the forms of expression is necessarily subtle and complex. It quoted from Judge Learned Hand who observed that "[o]bviously, no principle can be stated as to when an imitator has gone beyond copying the 'idea' and has borrowed its 'expression'. Decisions must therefore . . . be ad hoc."[35]

The court stated that copying itself is not an infringement, if the copying is merely the work's ideas which are not protected by the copyright. To constitute an infringement, the copying must reach the point of unlawful appropriation, or the copying of the protected expression itself. The Kroffts alleged that the McDonaldland advertising campaign infringed the copyrighted H.R. Pufnstuf television episodes as well as various copyrighted articles of Puffnstuff merchandise. McDonald's Corporation and Needham, Harper & Steers, Inc. did not dispute the fact that they copied the idea of the Kroffts' television series. They argued that the expressions of the ideas were too dissimilar for there to be an infringement.[36]

The court viewed representative samples of both H.R. Pufnstuf show and McDonaldland commercials and found that the defendants' works

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[33] *Id.*

[34] *Id.* at 1162.

[35] *Id.* at 1163 (quoting from Nichols v. Universal Pictures Corp., 45 F.2d 119 (2d Cir. 1930) *cert. denied,* 282 U.S. 902 (1931)).

[36] *Id.* at 1165.

were substantially similar to the plaintiffs. The court used the observation and impression of the average lay observer to determine whether there was substantial similarity in expressions. The Court did not believe that the ordinary reasonable person viewing both works would ever notice that Pufnstuf was wearing a cumberbund while Mayor McCheese was wearing a diplomat's sash. The court held that Needham and McDonald's captured the "total concept and feel" of the Pufnstuf show.[37]

In *Sid & Marty Krofft Television Production,* McDonald's and Needham admitted that they copied the idea of the H.R. Pufnstuf characters. The court did not need to find circumstantial evidence of copying or substantial similarity.

The court next addressed the second prong for a finding of infringement — whether the copying went so far as to constitute an improper appropriation or the copying of the protected expression itself. The court found that the characters each had developed personalities and particular ways of interacting with one another and their environment. The physical setting also had several unique features. The court applied the reasonable person test and found that the observations and impressions of the average reasonable spectator would find the overall impact and effect indicated substantial appropriation.[38] The *Sid & Marty Krofft* court stated the public policy argument "that the plaintiff has a legally protected right in the potential financial return from his works which derive from the lay public's approval of his efforts.[39]

The following case demonstrates a situation in which the court found substantial similarity between two works, but found no infringement. In *Reyher v. Children's Television Workshop,*[40] the court upheld an order dismissing a copyright infringement on the ground there was no substantial similarity between the two works as to copyrightable matter. Reyher authored and illustrated a copyrighted children's book entitled *My Mother Is The Most Beautiful Woman In The World.* Children's Television Workshop (CTW) is the producer of the educational children's television program, "Sesame Street" and publisher of Sesame Street Magazine.[41]

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[37] *Id.* at 1167.

[38] Sid & Marty Krofft Television v. McDonald's Corp., 562 F.2d at 1169.

[39] *Id.* at 1165.

[40] Reyher v. Children's Television Workshop, 533 F.2d 87 (2d Cir.) *cert. denied,* 429 U.S. 980 (1976).

[41] *Id.* at 88.

Reyher alleged that CTW infringed his copyright by publishing an illustrated story entitled "The Most Beautiful Woman In The World", and by producing, performing, taping, and televising, without knowledge or authorization, a television skit entitled "The Most Beautiful Woman In The World". Both works had a similar plot line involving a child separated from its homely mother who considered her the most beautiful woman in the world. Reyher testified that her book had its origination in a story told to her as a child by her mother. She claimed it was her treatment, even though it was her mother's story. The author of the allegedly infringing work, testified that he remembered the theme used in his script from a story told to his younger sister more than 20 years ago. He denied he had ever seen Reyher's work in any form, and he stated that he used no source for his script other than his memory. The artist who had sketched the allegedly infringing illustration testified that he had referred to no outside materials when illustrating the story, although he remembered the story from a book read during his childhood in Europe.[42]

The issue the court addressed was whether CTW "utilized the idea in Reyher's book or instead descended so far into the concrete as to invade her expression".[43] The court delved into a step-by-step analysis of the differences and the similarities between Reyher's book and the story by CTW. In addition to the essential sequence of events, the court considered the "total concept and feel" in both works. The court concluded that the two stories were not similar in mood, details or characterization. Both presented the same idea, but no infringement as to the protected expression occurred.

In *Reyher,* the author and artist both denied that they had seen Reyher's work in any form. No facts were presented that showed that CTW had access to Reyher's work before the allegedly infringing story was published or produced for television, nor did the court address the issue. The court next examined the substantial similarities as to the protectable material in the two works. It reviewed in detail the non-protectable idea from the protected expression in order to determine whether or not an infringement occurred. The court found that the thematic concepts were similar, but that the morals stated in the two stories were different and that the two works differed in their total feel.[44]

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[42] *Id.* at 89.

[43] *Id.* at 91.

[44] *Id.* at 92.

In applying the test for infringement to the two cases, one main fact separates *Sid & Marty Krofft Television Productions* from *Reyher.* Needham negotiated with the Kroffts for the use of the H.R. Pufnstuf characters and acknowledged the fact that they needed to pay the Kroffts a fee for work performed. Needham further hired away some of the key employees from the Krofft organization, and seriously impaired the Krofft's licensing of their characters. On the other hand, CTW had no contact with Reyher, nor did they financially impair her earning capacity based on her book.

D. *Works of Non-Fiction*

In the cases dealing with works of historical events and facts the court applies the same test to prove infringement, e.g., the plaintiff must demonstrate that the defendants "copied" his work and that they "improperly appropriated" his expression. However, the courts, in an infringement suit of a non-fiction work, use a different process of analysis to reach that result. In many of the cases analyzed, access and similarity are conceded. They are not used as circumstantial evidence of copying. The courts will compare the two works in order to determine whether the defendant's work was created through independent labor and without appropriation of any of the literary matter protected by the copyright in the plaintiff's work.[45]

Historical events and facts are not protected by copyright as a matter of law. What is protected is the arrangement of words which the author has selected to express his ideas.[46] What is actionable as a copyright infringement is a verbatim reproduction of another's work.[47]

One type of non-fiction work is the directory. The stock example is the city directory which publishes nothing but facts. The facts are not the subject of copyright, but a second directory publisher cannot bodily appropriate the research of his predecessor.[48]

An example of a directory case is *Schroeder v. William Morrow and Co.*,[49] an action for infringement of a copyright on a gardening directory which consisted of listings of the names and addresses of suppliers of

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[45] Alexander v. Irving Trust Co., 132 F. Supp. 364 (S.D.N.Y.), 228 F.2d 221 (2d Cir. 1955) *cert. denied,* 350 U.S. 996 (1956).

[46] Hoehling v. Universal City Studios, Inc., 618 F.2d 972 (2d Cir.) *cert. denied* 449 U.S. 841 (1980).

[47] Funkhouser v. Loew's Inc., 208 F.2d 185, 189 (8th Cir. 1953) *cert. denied* 348 U.S. 843, *reh. denied,* 348 U.S. 890 (1954).

[48] 618 F.2d 972 (2d Cir.) *cert. denied,* 449 U.S. 841 (1980).

[49] Schroeder v. William Morrow and Co., 566 F.2d 3 (7th Cir. 1977).

seeds, plants, publications, and other useful items, information about each supplier, and a list of plant societies. William Morrow & Co.'s book was much more voluminous: it included gardening advice, information, illustrations, miscellaneous similar material, and listings of plant societies and suppliers of seeds, plants, etc. Without independent checking or verification, the compilers of Morrow's book copied the names and addresses, but no other information appearing in Schroeder's book. The copied names and addresses, which amounted to about one per cent of Morrow's book, were publicly available. Marion Schroeder had collected and categorized them by her own individual effort.[50]

The court found that Schroeder's copyright was infringed because original compilation of names and addresses was copyrightable even though the individual names and addresses were in the public domain and not copyrightable. It stated "that the copyright protects not the individual names and addresses but the compilation, the product of the compiler's industry. Another is entitled to make his own compilation of the same names and addresses, using the information in the public domain, but he is not entitled merely to copy the copyrighted list."[51] "Appropriation of the fruits of another's labor and skill in order to publish a rival work without the expenditure of the time and effort required for independently arrived at results is a copyright infringement."[52]

The problem of the appropriation of the fruits of another's labor was handled differently in *Huie v. National Broadcasting Company*.[53] *Huie* is a case where the plaintiff's literary treatment of historical facts was of such originality that the defendant's treatment of the same subject matter was inspired by it. A suit was brought to enjoin the production of a television show on the ground that it would infringe Huie's copyright on a story entitled "The Hero of Iwo Jima", where both productions had for their central character a Pima Indian named Ira Hayes, who was one of the Marines photographed in a picture of the flag raising on Mount Suribachi.[54]

There was no question of access because one of the defendants, Miller, admitted that he read Huie's story in consideration of its use as a basis for a television script. However, the idea was abandoned. Afterward, Mil-

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[50] *Id.*

[51] *Id.*

[52] Orgel v. Clarkboardman Co., 301 F.2d 119, 120 (2d Cir.) *cert. denied*, 371 U.S. 817 (1962).

[53] Huie v. National Broadcasting Co., 184 F. Supp. 198 (S.D.N.Y. 1960).

[54] *Id.* at 199.

ler did submit a television script to NBC based on the life of Ira Hayes. This script was worked over by some of the defendants until the present final script resulted.[55]

The court found the similarity between the two works to be obvious. NBC defended that what was taken from Huie's story was little more than the historical facts of a man's life. A new twist entered when Huie countered with a demonstration that several of the episodes which appeared in both works were the products of his imagination and could not be classified as historical facts. The court held that since Huie represented his story to be a true story, he was estopped to say the episodes were not historical.[56]

In its analysis, the court stated that since the episodes were treated as history, this did not mean that there could be blanket copying. It was not necessary to eliminate the similarities. The court used the following example:

> [i]f an historian had published a history of the negotiations between the Soviet Union and the United States with respect to nuclear explosions and copyrighted it, it would be an infringement of the copyright for another historian to publish a history re-written from the first historian's book without any independent research.[57]

Based on the above analysis, the court held that Miller's failure to discover that the fictional episodes were not really history was a demonstration that no independent research was made in those instances. However, the court stated that the proof of appropriation of Huie's research was not strong enough to warrant a preliminary injunction.[58]

The court put aside the question of slavish copying because there was no suggestion of it. It addressed the issue of whether Huie's literary treatment of Ira Hayes' life was of such originality that NBC's treatment of the same subject could have been inspired by it. The court heard uncontradicted evidence that Miller was considering the use of the life of Ira Hayes before he saw Huie's book. It stated that each of the authors seemed to have made use of all the facts with respect to the life of Ira Hayes and, once all the data was in hand, the theme followed by each of the authors was almost inevitable. It allowed that the story as written by Miller was better than if he had used only the actual facts, but

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[55] *Id.*

[56] *Id.* at 199 and 200.

[57] *Id.* at 200.

[58] *Id.*

that Huie was estopped to say that the lifted episodes were not historical. Nor was the part of the lifted episodes in the NBC production enough to convert it into a copy of Huie's literary treatment.[59]

Another infringement case based on the use of historical facts is *Hoehling v. Universal City Studies, Inc.*[60] Hoehling claimed that a number of specific facts ascertained through his personal research were copied and that the essential plot of his book was copied by Universal.

The Second Circuit court expanded the concept that factual information is in the public domain. The court rejected the other circuits' established rule that the fruits of original research are copyrightable. The Second Circuit court made it clear that ". . . the appellee has the right to avail himself of the facts contained in Hoehling's book and to use such information, whether correct or incorrect, in his own literary work."[61]

The *Hoehling* court quoted from another Second Circuit case, *Rosemont Enterprises, Inc. v. Random House, Inc.*,[62] and stated:

> we refuse to subscribe to the view that an author is absolutely precluded from saving time and effort by referring to and relying upon prior published material. . . . It is just such wasted effort that the proscription against the copyright of ideas and facts . . . are designed to prevent".[63]

It held that all of Hoehling's allegations of copying encompass material that was non-copyrightable as a matter of law. However, a verbatim reproduction of another work, even in the realm of non-fiction, was actionable as copyright infringement.[64]

Compare *Hoehling*, a 1980 case, with *Wainright Securities Inc. v. Wall Street Transcript Corporation*,[65] a 1978 case. When a comparison is made, it is not surprising that the test for infringement has defied precise formulation. *Wainright* is an appeal from a preliminary injunction prohibiting the Wall Street Transcript Corporation from publishing in their newspaper abstracts of Wainright Securities Inc.'s copyrighted research

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[59] *Id.*

[60] 618 F.2d 972 (2d Cir.) *cert. denied*, 449 U.S. 841 (1980).

[61] *Id.* at 451.

[62] Rosemont Enterprises, Inc. v. Random House, Inc., 366 F.2d 303 (2d Cir. 1966) *cert. denied*, 385 U.S. 1009 (1967).

[63] *Id.* at 310.

[64] Hoehling v. Universal City Studios, Inc., 618 F.2d at 986.

[65] Wainright Securities Inc. v. Wall Street Transcript Corp., 558 F.2d 91 (2d Cir. 1977) *cert. denied* 434 U.S. 1014 (1978).

reports. The Wall Street Transcript published the abstracts without permission.[66]

In its analysis of whether there is any copyright protection extended to reports of news events, the court made the distinction between the event itself and the particular form or arrangement of words in which the writer has communicated it. The District Court held that:

> what is protected is the manner of expression, the author's analysis or interpretation of events, the way he structures his material and marshals facts, his choice of words, and the emphasis he gives to particular developments, not the appropriation of the form of the expression used by the news source.[67]

In applying the facts of the case to the above law the court found:

> [that] the appellant did not bother to distinguish between the events contained in the reports and the manner of expression used by the Wainwright analysts. Unlike traditional news coverage, the Transcript did not provide independent analysis or research; it did not solicit comments on the same topics from other financial analysts; and it did not include any criticism, praise, or other reactions by industry officials or investors. Rather, the Transcript appropriated almost verbatim the most creative and original aspects of the reports, the financial analysis and predictions, which represented a substantial investment of time, money and labor. This was not legitimate coverage of a news event; instead it was . . . chiseling for personal profit.[68]

E. *Standard For Infringement*

Direct or circumstantial evidence of copying is not even an issue that is raised in most cases. The standard of copying in non-fiction works is literal appropriation of the copyrighted work. The scope of protection in non-fiction is very narrow. It protects no more than the author's original expression of particular facts and theories already in the public domain.[69] Where the court does find a literal appropriation, the court will go one step further before finding any infringement. It will look to see if the author of the second work has used any independent effort or originality in the creation of the work.

Originality is measured on a sliding scale based on the nature of the work. In a non-fiction work something less then verbatim copying of another work is the standard. The courts will extend copyright protection only to the author's original expression of particular facts and theories already in the public domain.[70] In works of fiction the standard

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[66] *Id.* at 1015.

[67] *Id.* at 1015.

[68] *Id.*

[69] *Hoehling,* 618 F.2d at 1016. *See also,* Landsberg v. Scrabble Crossword Game Players, Inc., 802 F.2d 1193 (9th Cir. 1986).

[70] *Id.*

is whether the resemblance would be recognized by ordinary observation, not fine analysis or argument. The test is whether the average lay observer would recognize the allegedly infringing work as an appropriation of the copyrighted work.[71]

V. RECENT DEVELOPMENT IN COPYRIGHT LAW

The Supreme Court has recently heard *Harper & Row, Publishers, Inc. v. Nation Enterprises*,[72] a 1985 case alleging violation of the Copyright Act. It is an action for an infringement of president Gerald Ford's memoirs. One month after president Ford left the White House, he granted Harper & Row and Reader's Digest exclusive rights to publish his memoirs. They were eventually published in a book entitled "A Time to Heal." A professional writer was hired to help Ford write the book. Ford's manuscript was nearly 200,000 words and covered 655 typewritten pages. It dealt not only with Ford's pardon of President Richard M. Nixon and the facts leading up to the pardon, but also with Ford's childhood, his career in Congress, his family life, his perceptions of various public figures, and finally his life after serving as President.[73]

In March 1979, the same month that the manuscript was nearly completed, a copy of Ford's manuscript was brought to the editor of The Nation Magazine. Although the editor neither solicited nor paid for the book, he did realize that neither Harper & Row nor Reader's Digest had authorized him to see the copy.[74] He hastily put together what he believed was a real hot news story. The editor did not attempt any independent commentary, research or criticism.[75]

Harper & Row and Reader's Digest had made an agreement with Time Magazine which agreed to pay $25,000 for the exclusive right to print pre-publication excerpts of the book in the April 23, 1979 issue of Time. The amount of $12,500 was paid at the time the contract was executed, and the other $12,500 was to be paid at the time the excerpts were published.[76]

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[71] McMahon v. Prentice-Hall Inc., 486 F.Supp. 1296, 1304, 205 U.S.P.Q. 819, 826 (E.D. Mich. 1980).

[72] Harper & Row, Publishers, Inc. v. Nation Enterprises, 723 F.2d 195, (2d Cir. 1983) *cert. granted*, 467 U.S. 1214 (1984) rev'd, 471 U.S. 539 (1985).

[73] *Id.* at 198.

[74] The trial judge dismissed the state law claims of conversion and tortious interference with contractual rights, finding them pre-empted by the Copyright Act.

[75] *Harper & Row, Publishers, Inc.*, 723 F.2d at 199.

[76] *Id.*

In April 1979, The Nation Magazine came out with the article which was the subject of this copyright infringement suit. The magazine article was 2,250 words, about one per cent of the length of Ford's "A Time To Heal." The article was contained in three pages. It started with three paragraphs which summarized the factual highlights and gave the expected publication date of Ford's book. The next nineteen paragraphs, which dealt with Ford's decision to pardon Nixon, were argued to be barely disguised paraphrasing or direct thefts of Ford's "original expression". As a result of the publication of The Nation article on April 3, Time declined to print the excerpts in its April 23 issue and did not make the second payment of $12,500.[77]

The District Court found that The Nation magazine had infringed Ford's book. The Second Circuit Court of Appeals reversed, holding that The Nation's publication of the 300 to 400 words it identified as copyrightable expression was sanctioned as a "fair use" of the copyrighted material under section 107 of the Act. The Supreme Court reversed and remanded the case, holding that use of the copyrighted manuscript by The Nation was an infringement of a copyrightable expression.[78]

The Court stated that copyright is intended to increase and not to impede the harvest of knowledge. In order to achieve that end the Copyright Act established a scheme for fostering original works that provide the seed and substance of this harvest. Only works that display the stamp of the author's originality are entitled to copyright protection; this includes works of fiction and non-fiction. The Court held it was evident that the monopoly granted by the copyright actively served its intended purpose of inducing the creation of new material of potential historical value[79].

In this six to three decision, the Supreme Court agreed with the Second Circuit that copyright is intended to add to the harvest of knowledge and not inhibit it. However, the Court held that not enough deference was given to the goal of protecting the economic incentive to create and disseminate ideas.[80] The Court found a marketable right to Mr. Ford's expression when it examined the facts:

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[77] *Id.* at 3.

[78] *Id.*

[79] *Id.* at 5.

[80] *Id.* at 18.

> The book at issue here . . . was two years in the making, and began with a contract giving the author's copyright to the publishers in exchange for their services in producing and marketing the work. In preparing the book, Mr. Ford drafted essays and word portraits of public figures and participated in hundreds of taped interviews that were later distilled to chronicle his personal viewpoint. It is evident that the monopoly granted by copyright actively served its intended purpose of inducing the creation of new material of potential historical value.[81]

It appears, in this case, that the intended purpose of copyright is no more than an economic interest in capturing the full value of the initial release of information.[82] The judgment is perhaps influenced by the Court's unspoken inclination to find infringement based on the taking of information and ideas.[83]

The dissent concluded that the "zealous defense of the copyright owner's prerogative will . . . stifle the broad dissemination of ideas and information copyright is intended to nurture."[84] It found that in passing the copyright legislation, Congress intended to define the rights included in copyright so as to serve the public welfare and not necessarily to maximize an author's control over his or her product. The dissent stated that "the promotion of science and useful arts" require a limit on the scope of an author's control. "Were an author able to prevent subsequent authors from using concepts, ideas, or facts contained in his or her work, the creative process would wither and scholars would be forced into unproductive replication of the research of their predecessors."[85] The dissent went on to state that the majority's narrow approach permits Harper & Row to monopolize information and that "the holding effects an important extension of property rights and a corresponding curtailment in the free use of knowledge and ideas."[86]

VI. CONCLUSION

It is well settled that the protection given to copyright is wholly statutory.[87] The Copyright Act grants to the copyright owner exclusive rights to use and to authorize the use of his work, to reproduce, adopt,

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[81] *Id.* at 6.

[82] *Id.* at 19 and 20 (Brennan, J., White, J., Marshall, J., dissenting).

[83] *Id.* at 16.

[84] *Id.* at 1.

[85] *Id.* at 4.

[86] *Id.* at 27.

[87] Wheaton v. Peters, 33 U.S. (8 Pet.) 591 (1834).

publish, perform and display. When one of these rights is violated, an infringement occurs. However, Congress did not define the term "infringement," but left it to the courts to define judicially.

Courts examine the facts of each case on an ad hoc basis, applying the statutory framework. In each case they go beyond the statute, to the relationship of the parties, with particular reference to the character and circumstances of that relationship. The issue that needs to be settled is not the rights of either party as against the public, but their rights as between themselves.[88]

In all of the cases presented here, the courts went through an analysis of what copyright protects and does not protect. Infringement was found in the situations where public policy warranted the prevention of the defendant from reaping the fruits of the plaintiff's effort and expenditures.

A court may apply the economic philosophy behind the constitutional clause empowering Congress to grant copyrights to encourage individual effort by personal gain. The framers of the Constitution believed this was the best way to advance public welfare through the talents of authors and inventors.[89] In applying this philosophy, the court balances the creation and dissemination of intellectual works for the public welfare against the author's reward due him for his contribution to society. Even though it is a balancing test, the two factors are closely related.[90] Each case must be decided on its own facts and the equities must be balanced.[91]

In order for a court to find an infringement of a copyright, it is not necessary that the whole work be copied, or a large portion of it in substance or form, but that the value ". . . of the original is sensibly diminished, or the labors of the original author are substantially, to an injurious extent, appropriated by another . . ."[92] By establishing a marketable right to the use of one's expression, copyright supplies the economic incentive to create and disseminate ideas.[93]

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[88] International News Service v. Associated Press, 248 U.S. 215 (1918).

[89] *Mazer v. Stein* at 217.

[90] REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW 3-6 (1961) reprinted in A. LATMAN, COPYRIGHT FOR THE EIGHTIES 12 (1981).

[91] Pub. L. No. 94-533, note 3, at 5679.

[92] Bradbury v. Columbia Broadcasting System, Inc., 287 F.2d at 485. *See also,* Whelan Associates v. Jaslow Dental Laboratory, 797 F.2d 1222 (3d Cir. 1986).

[93] Harper & Row, Publishers, Inc., 723 F.2d at 18.

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COMPILED BY JUDITH GIRE*

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RECENT DEVELOPMENTS REGARDING THE AWARDING OF MULTIPLE DAMAGES AND ATTORNEY FEES IN PATENT CASES*

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In a series of recent decisions, the United States Court of Appeals for the Federal Circuit has set a new standard of willful patent infringement which substantially increases the risk of liability for punitive damages and attorney fees in cases where the defendant acted with prior knowledge of the patent and without the competent opinion and advice of independent patent counsel.

Section 284 of the United States patent laws (35 U.S.C. § 284) permits a court to award to a patentee who prevails in an infringement action increased (i.e., punitive) damages "up to three times the amount found or assessed." Courts have generally been disposed to award increased damages in cases where infringement was found to be "willful", i.e., where there was a deliberate purpose to infringe, or a reckless disregard for, a patent of which the infringer was aware. Moreover, willful infringement can be grounds for holding the case to be "exceptional" so as to justify the award of attorney fees under 35 U.S.C. § 285. Since willfulness of infringement is an issue of fact and increased damages and attorney fees are awarded as a matter of judicial discretion, a trial court's finding of willfullness of infringement and consequent award of increased damages and/or attorney fees will not be overturned on appeal unless such a finding was clearly erroneous or the award abusive.

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According to the recent cases, a potential infringer, who is aware of the relevant patent rights of another, has an affirmative duty to determine in good faith whether or not the activity he contemplates would infringe those rights. *See, Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 219 U.S.P.Q. 569 (Fed.Cir. 1983); *Central Soya Co. v. Geo. A. Hormel & Co.*, 723 F.2d 1573, 220 U.S.P.Q. 490 (Fed.Cir. 1983); *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 221 U.S.P.Q. 1 (Fed.Cir. 1984); and *Kori Corp. v. Wilco Marsh Buggies and Draglines, Inc.*, 761 F.2d 649, 225 U.S.P.Q. 985 (Fed.Cir. 1985) *cert. den.*, 106 S.C. 230. This judicially-imposed duty significantly increases the risk of findings of willfulness in patent infringement litigations where the accused infringer, if he had actual foreknowledge of the patent, *did not obtain and rely upon a detailed, reasoned and objective opinion of independent patent counsel before beginning the activity in question.* If the patent owner proves that the adjudged infringer knew about and understood the patent(s) beforehand, then it will be up to the infringer to convince the court that it did not act willfully. The infringer can do this by showing that it acted in substantial good faith reliance on the competent opinion of independent patent counsel that the patent is invalid, unenforceable, and/or would not be infringed.

Therefore, when a company decides to engage in a commercial activity with knowledge of the potentially adverse patent rights of another, the company's management has an *affirmative duty* to determine carefully in good faith whether or not the company would be liable for infringement of such patent rights. This includes obtaining and following the competent opinion and advice of counsel *before* the start of such activity. Moreover, just because an infringer claims to have relied on the opinion and advice of counsel will not conclusively demonstrate good faith in all cases and therefore will not automatically absolve the infringer of willfulness. Rather, the trial court in each case will assess the merits and timeliness of counsel's opinion and advice by examining (i) the lawyer's independence with respect to his client; (ii) the lawyer's qualifications to render an opinion on patent matters; (iii) the adequacy of the lawyer's investigation; (iv) the substance and objectivity of the opinion and advice rendered; and (v) the reliance placed on such opinion and advice by the adjudged infringer.

An infringer's failure to discharge its duty of inquiry will give the trial court a reason for finding willful infringement and awarding increased damages and attorney fees, which can be substantial. *See, Shiley, Inc. v. Bentley Laboratories, Inc.*, 601 F.Supp. 964, 225 U.S.P.Q. 1013 (C.D. Cal. 1985). Unless the finding of willfulness was clearly erroneous or the puni-

tive damages and/or attorney fees were awarded in abuse of the judge's discretion, such finding and award are not likely to be disturbed on appeal.

I. INTRODUCTION

The purpose of this memorandum is to present the state of the law regarding "willful" patent infringement, as expressed in several recent decisions by the Court of Appeals for the Federal Circuit ("CAFC"). As legal precedents, those decisions have substantially increased the likelihood that courts will award punitive damages and attorney fees for willful infringement under 35 U.S.C. § 284 and § 285 in cases where an adjudged infringer had embarked on the infringing activity with prior knowledge of the patent and without having sought the benefit of competent advice of patent counsel beforehand.

II. DISCUSSION

A. *Background Legal Principles*

Section 271 of the United States patent laws (35 U.S.C. § 271) defines patent infringement as follows:

> (a) Except as otherwise provided in this title, whoever without authority makes, uses or sells any patented invention, within the United States during the term of the patent therefor, infringes the patent.
>
> (b) Whoever actively induces infringement of a patent shall be liable as an infringer.
>
> (c) Whoever sells a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.
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> * * *
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> (e)(2) It shall be an act of infringement to submit an application under section 505(j) of the Federal Food, Drug, and Cosmetic Act or described in section 506(b)(2) of such Act for a drug claimed in a patent or the use of which is claimed in a patent, if the purpose of such submission is to obtain approval under such Act to engage in the commercial manufacture, use, or sale of a drug claimed in a patent or the use of which is claimed in a patent before the expiration of such patent.
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> * * *
>
> (f)(1) Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

> (2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

A patent owner's monetary recovery or compensatory "damages" for patent infringement is governed by 35 U.S.C. § 284:

> Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.
>
> When the damages are not found by a jury, the court shall assess them. In either event *the court may increase the damages up to three times the amount found or assessed.*
>
> The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.[1] [2] [3]

Awards of attorney fees are provided for in 35 U.S.C. § 285 as follows:

> The court in exceptional cases may award reasonable attorney fees to the prevailing party.

As indicated, § 284 gives a trial court the discretion to award to a patentee who prevails in an infringement action exemplary or punitive damages by increasing the actual damages "up to three times the amount found [by the jury] or assessed [by the court]"; § 285 gives the

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[1] Wherever emphasis appears in this report, it has been added unless otherwise indicated.

[2] For cases involving calculation of damages under § 284 and its statutory antecedents, *see,* Story Parchment Co. v. Paterson Parchment Co., 282 U.S. 555, 563 (1931); Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 507, 141 U.S.P.Q. 681, 694 (1964); Tektronix, Inc. v. United States, 552 F.2d 343, 351, 193 U.S.P.Q. 385, 393 (Ct.Cl. 1977); General Motors Corp. v. Devex Corp., 461 U.S. 648, 217 U.S.P.Q. 1185 (1983); Lam, Inc. v. Johns-Manville Corp., 718 F.2d 1056, 1065, 1068, 219 U.S.P.Q. 670, 675, 678 (Fed.Cir. 1983); Bio-Rad Laboratories, Inc. v. Nicolet Instrument Corp., 739 F.2d 604, 616, 222 U.S.P.Q. 654, 663 (Fed.Cir. 1984) *cert. den.* 105 S.C. 516; and Paper Converting Machine Co. v. Magna-Graphics Corp., 745 F.2d 11, 21, 223 U.S.P.Q. 591, 598 (Fed.Cir. 1984).

[3] In cases of infringement of the type specified in 35 U.S.C. § 271(e)(2), quoted above, damages may be awarded against an infringer only if there has been actual commercial manufacture, use, or sale of an FDA-approved drug.

trial court discretion, "in exceptional cases" to require the loser to pay the prevailing party's "reasonable attorney fees." *Trio Process Corp. v. L. Goldstein's Sons, Inc.*, 612 F.2d 1353, 1361, 204 U.S.P.Q. 881, 887 (3d. Cir.), *cert. denied*, 449 U.S. 827, 207 U.S.P.Q. 1064 (1980), *op. clarified*, 638 F.2d 661 (3d Cir. 1981).[4]

Although § 284 does not specify the grounds for awarding punitive damages, such awards generally have been made in cases where the infringer's misconduct was found to be egregious.[5] In particular, courts have awarded them in cases where infringement was found to be "willful," or in other words, "wanton", "deliberate," "intentional", "vexatious," "gross" or "in reckless disregard of the patentee's rights". *See, Milgo Electronic Corp. v. United Telecommunications, Inc.*, 189 U.S.P.Q. 160 (D.Kan. 1976), *aff'd*, 623 F.2d 645, 665-66 (10th Cir.), *cert. denied*, 449 U.S. 1066 (1980); *Lam, Inc. v. Johns-Manville Corp.*, 668 F.2d 462, 475, 213 U.S.P.Q. 1061, 1071 (10th Cir. 1982), *cert. denied*, 456 U.S. 1007 (1982); *Deere & Co. v. International Harvester Co.*, 658 F.2d 1137, 1146, 211 U.S.P.Q. 11, 20-21 (7th Cir. 1981), *cert. den.*, 102 S.C. 514 (1981); *Smith v. Alyeska Pipeline Service Co.*, 538 F.Supp. 977, 986, 218 U.S.P.Q. 468, 474 (D.Del. 1982), *aff'd without op.*, 758 F.2d 668 (Fed.Cir. 1984) *cert. den.*, 105 S.C. 2142 (1985); and *Jenn-Air Corp. v. Penn Ventilation Co.*, 394 F.Supp. 665, 676, 185 U.S.P.Q. 410, 418 (E.D.Pa. 1975).[6] In order to in-

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[4] Punitive damages are not available in patent infringement actions against the United States government. Leesona Corp. v. United States 599 F.2d 958, 964-65, 202 U.S.P.Q. 424, 431 (Ct.Cl. 1979) *cert. den.* 444 U.S. 991. Colaianni, J., Damages in the U.S. Claims Court, 66 J. Pat. Off. Soc'y 3, 14 (1984). Attorney fees may be awarded to individuals or small businesses that prevail in patent infringement actions against the government, under the recently enacted Equal Access to Justice Act, P.L. 99-80.

[5] Awards of attorney fees under § 284 can also be made to a prevailing accused infringer. *See*, Western Marine Electronics, Inc. v. Furuno Electric Co., Ltd., 764 F.2d 840, 226 U.S.P.Q. 334 (Fed. Cir. 1985). slip op. (Fed.Cir. June 14, 1985); Machinery Corp. of America v. Gullfiber AB, 774 F.2d 467, 225 U.S.P.Q. 743, 745 (E.D.Pa. 1984). In Machinery Corp., the defendant, a foreign owner of a United States patent who had taken "the draconian step" of sending 162 letters to plaintiff competitor's customers stating that they were infringing the patent, was required to pay the competitor's attorney fees because the patentee's accusations of infringement were "clearly in error", and it had failed to consult in advance with competent American counsel.

[6] Specific factors upon which courts have traditionally based findings of willfullness of infringement include the following:

(1) Foreknowledge of the patent by the infringer, including knowledge of a pending relevant patent application. Maxon Premix Burner Co. v. Mid-Continent Metal Prod. Co., 279 F. Supp. 164, 178, 155 U.S.P.Q. 434, 445 (N.D.Ill. 1967); W.R. Grace & Co. v. Park Manufacturing Co., 378 F.Supp. 976, 978, 181 U.S.P.Q. 490, 492 (E.D.Ill. 1974); and Lang v. Prescon Corp., 545 F.Supp. 933, 948, 217 U.S.P.Q. 839, 851-52 (D.Del. 1982);

fringe a patent willfully, "the patent must exist and one must have knowledge of it." *State Industries, Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236, 224 U.S.P.Q. 418, 425 (Fed.Cir. 1985); and *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 628, 225 U.S.P.Q. 634, 644 (Fed.Cir. 1985). "Willfulness" is proved by showing through "clear and convincing evidence" that there was a deliberate purpose to infringe, *Wilden Pump & Engineering Co. v. Pressed & Welded Products Co.*, 655 F.2d 984, 989, 213 U.S.P.Q. 282, 287 (9th Cir. 1981); and *Dow Chemical Co. v. Chemical Cleaning, Inc.*, 434 F.2d 1212, 1214, 167 U.S.P.Q. 513, 514 (5th Cir. 1970), or where the infringer had no reasonable basis for believing that it had a right to engage in the accused acts. *Stickle v. Heublein, Inc.*, 716 F.2d 1550, 1565, 219, U.S.P.Q. 377, 388 (Fed.Cir. 1983). Willful infringement, when "clearly proved," can also be grounds for finding the case to be "exceptional" so as to justify awarding attorney fees under § 285. *Brookfield Athletic Shoe v. Chicago Roller Skate Co.*, 607 F.Supp. 241, 225 U.S.P.Q. 320 (N.D. Ill. 1984).

Willfulness of infringement is an issue of fact which must be determined in light of "the totality of the circumstances presented in the case." *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389-90, 219 U.S.P.Q. 569, 576-77 (Fed. Cir. 1983). For that reason, a finding by a trial court of willful infringement will not be overturned or dis-

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(2) "Copying", either literally or under the doctrine of equivalents, and whether *before* or *after* the patent issues, and with knowledge of the patentee's or applicant's rights. American Safety Table Co. v. Schreiber, 415 F.2d 373, 381-82, 163 U.S.P.Q. 129, 134-35 (2d Cir. 1969), *cert. den.* 396 U.S. 1038; Lam, Inc. v. Johns-Manville Corp., *supra*, at 668 F.2d 475, 213 U.S.P.Q. at 1071; Sidewinder Marine, Inc. v. Burns, 176 U.S.P.Q. 499, 501 (C.D.Cal. 1972); and Caterpillar Tractor Co., v. Berco, S.P.A., 215 U.S.P.Q. 948 (D.Wyo. 1982), *aff'd*, 714 F.2d 1110, 219 U.S.P.Q. 185 (Fed.Cir. 1983).

(3) Refusal by the infringer to follow the advice of counsel. Lam, Inc. v. Johns-Manville Corp., *supra*, 668 F.2d at 475, 213 U.S.P.Q. at 1071 (and CAFC cases discussed therein).

(4) Concealment of relevant information from counsel. Brian Jackson Associates v. San Manuel Copper Corp., 305 F.Supp. 66, 72, 163 U.S.P.Q. 198, 202 (D.Ariz. 1969); and

(5) "Bad faith" or "misconduct" by the infringer during litigation (e.g., meritless defenses, and dilatory discovery tactics). Continuous Curve Contact Lenses, Inc. v. National Patent Development Corp., 214 U.S.P.Q. 86, 113 (C.D. Cal. 1982); and *Western Marine, supra*, at No. 84-618.

turbed by an appellate court unless such finding was "clearly erroneous." *Leinoff v. Louis Milona & Sons, Inc.*, 726 F.2d 734, 742, 220 U.S.P.Q. 845, 851 (Fed.Cir. 1984)[7].

On the other hand, courts have refused to increase damages or award attorney fees in cases where the infringer was acting "reasonably and in good faith," such as by having an "honest doubt" about the validity of the patent because the issues were "close and fairly debatable". *See, Wilden Pump & Engineering Co. v. Pressed & Welded Products Co., supra,* at 655 F.2d 989, 213 U.S.P.Q. 286; *Deere & Co., v. International Harvester Co., supra,* at 658 F.2d 1146, 211 U.S.P.Q. 20-21; and *Crucible, Inc. v. Stora Kopparbergs, AB,* 594 F.Supp. 1249, 1264, 226 U.S.P.Q. 36, 48 (W.D.Pa. 1984).

B. *Current Case Law*

In a series of recent decisions, the CAFC restated the law on willful patent infringement and held that a potential infringer, who is aware of the relevant patent rights (including pending rights in a patent application) of another, has an affirmative duty to exercise due care to determine in good faith whether or not his activity, if embarked upon, would infringe those rights. The decisions were reported in the following cases:

Underwater Devices, Inc. v. *Morrison-Knudsen, Co.*,
717 F.2d 1380, 219 U.S.P.Q. 569 (Fed.Cir. 1983);
Central Soya Co. v. *Geo. A. Hormel*,
723 F.2d 1573, 220 U.S.P.Q. 490 (Fed.Cir. 1983);
Rosemount, Inc. v. *Beckman Instruments, Inc.*,
727 F.2d 1540, 221 U.S.P.Q. 1 (Fed.Cir. 1984); and
Kori Corp. v. *Wilco Marsh Buggies and Draglines, Inc.*,
761 F.2d 649, 225 U.S.P.Q. 985 (Fed.Cir. 1985), *cert. den.* 106 S.C. 230 (1985).

As will be discussed below, these CAFC decisions are important because they significantly increase the likelihood that patent infringers will suffer the consequences for willfulness in situations where the accused infringer, who had actual foreknowledge of the patent(s) in ques-

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[7] Rule 52(a), Fed.R.Civ.P., which provides that district courts shall set forth findings of fact after bench trials and in granting or refusing interlocutory injunctions, states: "Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses." Recently, in Anderson v. Bessemer City, 470 U.S. 564 (1985), *rev'g,* 717 F.2d 149 (4th Cir. 1983), *rev'g,* 557 F.Supp. 412 (W.D.N.C. 1983), the U.S. Supreme Court restated the principle that Rule 52(a) embodies, namely, that a trial court's fact finding is clearly erroneous only if "the reviewing court on the evidence is left with the definite and firm conviction that a mistake has been committed". *Id.*, at 4317, quoting *United States v. U.S. Gypsum Co.*, 333 U.S. 364, 395 (1948).

tion, *had not obtained a detailed, reasoned, objective opinion of independent patent counsel beforehand upon which the infringer could have relied* in justification of its subsequent activities.

In *Underwater Devices,* the first case in the series, the patent owner had offered a license to the defendant who refused to accept it and proceeded to engage in the infringing activity. The refusal was based on defendant's in-house, non-patent attorney's opinion that (1) the patented device and process were anticipated by, or at least obvious in view of, an earlier published article, (2) statistically, courts invalidate litigated patents approximately 80% of the time, and (3) plaintiff was not likely to sue for fear of placing its widely licensed patents at risk. House counsel's pre-infringement opinion was not based upon an investigation of the prosecution histories of the patents. *After* the defendant was sued, it obtained a second opinion, this time from outside patent counsel; but the trial court gave no weight to it and found that defendant had willfully infringed, and awarded plaintiff patentee trebled damages. In affirming the judgment, the CAFC held that a when a potential infringer has actual notice of another's patent rights, such party "has an affirmative duty to exercise due care to determine whether or not he is infringing." This includes the duty to "seek and obtain *competent* legal advice from counsel *before* the initiation of any possible infringing activity." *Id.,* 717 F.2d at 1389-90, 219 U.S.P.Q. at 576-77.

The CAFC also made it clear that trial courts must evaluate critically any legal advice given to an infringer in deciding whether it was "competent" advice upon which the infringer could justifiably have relied. *Underwater Devices, supra,* 717 F.2d at 1390, 219 U.S.P.Q. at 576. In affirming the trial court's finding of willful infringement, the CAFC concluded that the advice of house counsel, albeit given prior to infringement, was nevertheless unsatisfactory because it was "incompetent" and "inadequate" for the following reasons:

> (1) the opinions contained only "bald, conclusory and unsupported remarks regarding validity and infringement of the patents" and did not contain "a patent validity analysis, properly and explicitly predicated on a review of the file histories of the patents at issue, and an infringement analysis that, inter alia, compared and contrasted the potentially infringing method or apparatus with the patented invention"; and
> (2) the lawyer who rendered the opinions was an in-house (and therefore by inference not independent), non-patent (and therefore by inference non-competent) attorney.

On these bases, the CAFC found that the defendant had willfully infringed because it "knew or should have known that it was acting without the type of competent legal advice upon which it could justifiably have relied."

Judicial criticism of an infringer's advice of counsel was carried further in *Central Soya,* where the CAFC affirmed the trial court's award of doubled damages (2 X $152,980) and attorney fees ($100,000) to the patentee against the infringer based on a finding of willful infringement despite a timely, but highly equivocal, opinion of outside patent counsel, which advised that "there is a reasonably good chance that the patent might be held invalid" over the prior art cited during the prosecution of the patent application. *Id.,* 723 F.2d at 1576-77, 220 U.S.P.Q. at 492. After noting the "formidable" burden upon patent challengers imposed by the statutory presumption of patent validity[8] and the need to look at "the totality of the circumstances presented in the case," the court stated:

> "[t]he attorney's advice, based soley on file history prior art, *does not by itself* raise an inference of good faith substantial enough to convince us that the trial court's determination of willful infringement was clearly erroneous." [723 F.2d at 1577, 220 U.S.P.Q. at 492.][9]

The court also noted the infringer's failure to adhere in good faith to the analysis and advice contained in the opinion it received, stating:

> "Hormel's intentional disregard of its counsel's opinion negates any inference of good faith, placing Hormel in the same position as one who failed to secure the advice of counsel". [723 F.2d at 1577, 220 U.S.P.Q. at 493; citations omitted]

In *Rosemount,* the CAFC affirmed the district court's award of both trebled damages *and* attorney fees to the prevailing patentee based on a finding "that Beckman knowingly, deliberately and willfully and wantonly infringed because of market pressure and without investigating the validity or scope of the patent. . ." *Id.,* 727 F.2d at 1547, 221 U.S.P.Q. at 8. The infringer, Beckman, did not even have an opinion from an inside, non-patent attorney. Rather, Beckman tried to show that it had acted in a good faith belief in the invalidity of Rosemount's patent by offering evidence in the form "in-house memos" from its engineers and executives stating that they saw nothing patentable in Rosemount's devices. The CAFC held the "in-house memos" to be insufficient to establish "the presence of. . . 'honest doubt' regarding validity and infringement." *Id.,* 727 F.2d at 1548, 221 U.S.P.Q. at 8.

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[8] 35 U.S.C. § 282 provides, a pertinent part:

A patent shall be presumed valid. *** The burden of establishing invalidity of a patent shall rest on the party asserting such invalidity.

[9] Judge Nichols, in his concurring opinion, noted the additional fact that the outside counsel's opinion fell "far short of an unequivocal statement that if Hormel follows the writer's guidelines, infringement will not result". *Id.,* 723 F.2d at 1581, 220 U.S.P.Q. at 495-96.

The salient point in the *Rosemount* decision is, again, the CAFC's emphasis on the absence of a pre-infringement opinion from defendant's outside patent counsel sanctioning the proposed course of conduct:

> This Court held that a duty exists to obtain competent legal advice before initiating possibly infringing action. *Underwater Devices, Inc., supra.* This court has also held that willfulness may include a determination that the infringer had no reasonable basis for believing it had a right to do the acts. *Stickle* v. *Heublein, Inc.* 716 F.2d 1550, 219 U.S.P.Q. 377 (Fed. Cir. 1983). There was no evidence at trial that Beckman had sought and obtained competent legal advice, and the district court's findings establish that it made the "no reasonable basis" determination required by Stickle. (emphasis added) (727 F.2d at 1548, 221 U.S.P.Q. at 8)

In *Kori,* a contract welder employed by the plaintiff (the exclusive sublicensee under a patent for a pontoon-type endless-track amphibious vehicle designed to operate in tree stump-studded swamps), learned of certain design details of the invention, obtained a copy of the patent, and induced the defendant corporation to purchase one of plaintiff's vehicles and to began making, selling and renting vehicles "strikingly similar" to plaintiff's product.

The trial court found that defendants had deliberately and willfully infringed the plaintiff's patent under the facts of the case, which included defendants' foreknowledge of the patent, and their "failure to establish good faith reliance upon an authoritative opinion of invalidity from counsel before beginning to manufacture the infringing units." A letter written by defendants' counsel to one of their potential customers *after the infringement suit was commenced* and which stated in conclusory fashion without any supporting reasons that "I have every reason to believe that validity of the aforesaid patent cannot be maintained and that it will be declared null and void by the court handling the litigation" was held "not [to] amount to an 'authoritative opinion' upon which a good faith reliance on invalidity may be founded." *Id.,* 761 F.2d at 656, 225 U.S.P.Q. at 989. The CAFC held that, since the trial court's finding of willful infringement was "not clearly erroneous", the trial court did not abuse its discretion in awarding to the plaintiff exemplary (doubled) damages in the amount of $1,033,616.60 and attorney fees of $50,000. *Id.,* 761 F.2d at 657, 225 U.S.P.Q. at 989-90.

The foregoing appellate cases make it clear that when a company decides to engage in a commercial activity with actual knowledge of another's possibly relevant patent rights, its management has an *affirmative* duty to exercise due care to determine in good faith whether or not the company will be liable for infringement of such patent rights. This includes seeking and obtaining competent advice of counsel *before* the initiation of any possible infringing activity. Because an infringer

claims to have relied on the opinion and advice of counsel does not *per se* demonstrate good faith and therefore does not automatically absolve the infringer of willfulness in all cases. Rather, the court must examine (i) the adequacy of counsel's investigation, (ii) the substance of the opinion and advice rendered, and (iii) the reliance placed upon them by the adjudged infringers.

Consistent with the above CAFC precedents is the recent district court decision in *Shiley, Inc. v. Bentley Laboratories, Inc.*, 601 F.Supp. 964, 225 U.S.P.Q. 1013 (C.D. Cal. 1985). The court awarded increased damages and attorney fees approaching $45 million upon an express finding (based upon an advisory jury verdict on the issue) that the infringer had failed to discharge the affirmative duty, placed upon it by *Underwater Devices,* to exercise due care in determining whether or not it was infringing the patents-in-suit *before* embarking on its infringing activity.

In *Shiley,* the defendant had acquired several early versions of plaintiff's blood oxygenators which were marked "patent pending". Within a few months, through "reverse engineering," the defendant began marketing an infringing device. Moreover, the defendant obtained a copy of plaintiff's patent within a few days after it issued. In view of these facts, the court stated:

> "It is now the law:
>
> Where, as here, a potential infringer has actual notice of another's patent rights, he has an affirmative duty to exercise due care to determine whether or not he is infringing. *Underwater Devices, Inc.* v. *Morrison-Knudson Co.*, 717 F.2d 1380, 1389 (Fed.Cir. 1983)."

The defendant claimed that its infringement was not willful because it had obtained an oral opinion of non-infringement from outside patent counsel at the time the patent issued and because two-and-one-half years later it received a written opinion of non-infringement from its outside patent counsel. The court found that, because the first opinion was based solely upon a cursory examination of the patent and the second opinion was too late, i.e., three years after the start of infringement, neither of them satisfied the requirement of *Underwater Devices,* that a *competent* opinion of independent counsel be obtained *before* engaging in a potentially infringing activity. "In summary, [the court found] that the credible evidence presents no good faith, reasonable basis for defendent to believe it had the right to commit the infringing acts."

In *S.C. Johnson & Son, Inc. v. Carter-Wallace Inc.*, 614 F.Supp. 1278, 225 U.S.P.Q. 1022 (S.D.N.Y. 1985), the plaintiff sued to recover for defendant's infringement of a patent covering a post-foaming shaving gel. The district court held that the defendant's infringement was willful and deliberate, albeit not enough to make the case "exceptional" under

35 U.S.C. § 285 so as to justify awarding increased damages or attorney fees. The court's leniency may have stemmed from the fact that the defendant had at least obtained a validity opinion from outside patent counsel and a non-infringement opinion from in-house patent counsel. However, the outside-counsel's opinion was criticized as being "not very helpful" because, at best, the advice it contained, namely, "that there was a reasonably good chance the Monson Patent might be held invalid" and that, "if Carter were sued, he could make plausible arguments for invalidity" admittedly did not provide a basis upon which Carter could reasonably go forward with confidence. Carter's reliance on its in-house patent counsel's non-infringement opinion, while it did not in and of itself "demonstrate a lack of good faith," nevertheless was criticized by the court as a "factor to be considered," and as such:

> [t]he burden lies with Carter to demonstrate it was justified in believing that its in-house counsel was capable of rendering an independent and competent opinion and that he took the steps normally considered to be necessary and proper in preparing an opinion. *Underwater Devices, supra,* 717 F.2d at 1390, 219 U.S.P.Q. at 576-77. House counsel did not have actual court experience in patent litigation. That is of course, the arena where patent infringement questions are determined.

In finding the in-house counsel's opinion inadequate under the *Underwater Devices* rule, the court pointed out the following deficiencies:

- It was conclusory in nature and did not contain a real analysis comparing and contrasting the potentially infringing RISE formulation with the patented invention.
- There were no exhibits to provide the missing detailed analysis.
- The attorney did not present any specific facts relied upon to support his conclusion.
- No experimental work was done or relied on which might have supported the attorney's conclusion of non-infringement or resolved technical questions.

In this regard, it should be noted that reliance on an "advice of counsel" defense waives the attorney-client privilege with respect to *all* communications, whether written or oral, to or from counsel concerning the transaction for which counsel's advice was sought including, of course, counsel's opinion. *See, Panter v. Marshall Field & Co.,* 80 F.R.D. 718, 721 (N.D.Ill. 1978); and *Smith v. Alyeska Pipeline Service Co.,* 538 F.Supp. 977, 979-82, 218 U.S.P.Q. 468, 469-471, (D.Del. 1982), *aff'd without op.,* 758 F.2d 668 (Fed.Cir. 1984), *cert. den.,* 105 S.C. 2142 (1985).

III. CONCLUDING REMARKS AND RECOMMENDATIONS

Recent court decisions have placed an *affirmative duty* on any individual or organization having knowledge of the relevant patent rights of another to exercise due care to make a good faith determination of whether or not it would infringe those rights, *before* embarking on a potentially infringing activity. This duty includes obtaining and following the opinion and advice of competent, preferably independent, patent counsel sanctioning the proposed conduct. Failure to discharge this affirmative duty will provide a court with a basis for finding willful infringement and consequently awarding multiple damages and attorney fees.

Once a patentee succeeds in establishing at an infringement trial that the infringer had actual notice of the patent prior to the lawsuit, it will then be up to the infringer, if it would avoid a finding of "willfulness", to prove either that it was not aware of plaintiff's patent rights prior to infringement or that it had satisfied the affirmative duty to seek, obtain and follow competent legal advice from independent patent counsel *before* the start of the infringing activity.

THE EVOLUTION OF THE TOTALITY OF THE CIRCUMSTANCES TEST FOR WILLFUL INFRINGEMENT

TIMOTHY N. TROP*

Relatively shortly after its inception, the Federal Circuit set out what many believed to be strict standards for avoiding a finding of willful infringement.[1] Suddenly there was talk about the "duty" to obtain thorough, timely, competent written opinions of counsel before embarking on a new product line. Patent owners must have been encouraged as writers both in the legal journals and the popular press began to warn the unwary of the infringer's dramatic potential downside absent an adequate opinion of counsel.[2]

More recently the Federal Circuit has made it equally clear that what was once a "duty" to obtain a proper opinion of counsel now is only one "factor" to be considered in determining willful infringement. A review of the cases decided by the Federal Circuit indicates that the law in this area is still in an evolutionary stage.

The Law of Willful Infringement In the Federal Circuit From 1982-1984

In *Underwater Devices Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983), the Federal Circuit first adopted the law of an "affirmative duty" to exercise due care to avoid infringement. The appellate court affirmed the trebling of a $200,000 reasonable royalty damage award. The patent owner had offered to license the infringer before the infringement began for a one time $200,000 royalty.

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[1] See Pavlak, "The Increasing Risk of Willful Patent Infringement", 65 J.P.O.S. 603 (1983); and Roper, "Damages in Patent Infringement Litigation" in Developments 1985 (Banner ed. 1985).

[2] See, e.g., Perry, "The Surprising New Power of Patents", Fortune, June 12, 1986, at 57 and McMahon, "Patents Better Protected, But Look Who's Getting Them", Wall St. J., Mar. 4, 1986 at 30, col. 3.

The court's infringement discussion began with an important statement for assessing the impact of the opinion. Judge Kashiwa noted that the standard for review of willful infringement is whether the district court's finding was "clearly erroneous", since willful infringement is a finding of fact. *Underwater Devices Inc.*, 717 F.2d at 1389. This suggested that most willful infringement decisions should be affirmed.

The Federal Circuit cited five findings of fact in affirming the district court:

1. The opinion of counsel was obtained after the infringing activities had begun;
2. The attorney did not order the file histories until after the infringement had begun;
3. The opinion was not received until after the suit had been filed;
4. The opinion was rendered by in-house counsel; and
5. The opinion was not rendered by a patent attorney.

The court defined the potential infringer's burden as follows:

> Where, as here, a potential infringer has actual notice of another's patent rights, he has an *affirmative duty* to exercise due care to determine whether or not he is infringing. See *Milgo Electronic Corp. v. United Business Communications, Inc.*, 623 F.2d 645, 666, 206 U.S.P.Q. 481, 497 (10th Cir. 1980), *cert. denied*, 449 U.S. 1066, 101 S.Ct. 794, 66 L.Ed.2d 611 (1980). Such an affirmative duty includes, *inter alia*, the duty to seek and obtain competent legal advice from counsel before the initiation of any possible infringing activity. See *General Electric, supra*, at 1073-74, 163 U.S.P.Q. at 261; *Marvel Specialty Company v. Bell Hosiery Mills, Inc.*, 386 F.2d 287, 155 U.S.P.Q. 545 (4th Cir. 1967), *cert. denied*, 390 U.S. 1030, 88 S.Ct. 1409, 20 L.Ed.2d (1968). (Emphasis added)

Underwater Devices Inc., 717 F.2d at 1389-1390. This concept of a duty owed by the potential infringer seems to have far reaching consequences. On its face, the "affirmative duty" language suggests a *per se* standard for willful infringement.

Interestingly, the opinions that apparently were produced by the infringer as a defense to the charge willful infringement may have worsened the infringer's situation. The court characterized one of the memoranda as containing only "bald, conclusory and unsupported remarks." *Underwater Devices Inc.*, 717 F.2d at 1390. This caused Judge Kashiwa to conclude that, "[w]hat these memoranda clearly demonstrated was M-K's willful disregard for the Robley patents." *Underwater Devices Inc.*, 717 F.2d at 1390.

The only memorandum of any substance suggested that the patents were "described" in an article published more than one year earlier. If the patents were not fully "described" then the memorandum suggested that the patented method and apparatus are "simply a further development" of the article and thus would be found invalid. What may have actually "cooked the infringer's goose"[3] was the statement in the memorandum that:

> Courts, in recent years have — in patent infringement cases — found the patents claimed to be infringed upon invalid in approximately 80% of the cases. I would recommend we continue to refuse to even discuss the payment of a royalty with Underwater Devices. Underwater Devices must recognize that if they sue us, they might kill the goose that lays the golden eggs.

The last sentence of the opinion on willful infringement stated that the district court's finding "in the totality of the circumstances presented in this case" was not clearly erroneous. *Underwater Devices Inc.*, 717 F.2d at 1390. This language, although seemingly insignificantly placed at the end of the decision, became the bone of contention in subsequent cases.[4]

However, the only authority cited for the "totality of the circumstances" proposition is *Milgo Electronic Corp. v. United Business Communications, Inc.*, 623 F.2d 645, 665 (10th Cir. 1980). This of course is the same case relied upon in *Underwater Devices* for the "affirmative duty" standard.

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[3] Similarly cynical advice that was the subject of another 1983 Federal Circuit decision on willful infringement prompted Judge Nichols to note in a concurring opinion that:

> The letter closes with the cynical advice, which has caused so much amusement among readers for whom it was obviously not written, that if Hormel chose to go ahead and produce the questioned product, 'as an added safety precaution,' it should do so in the jurisdiction of the Eighth Circuit Court of Appeals. The writer says: "The Eighth Circuit has not held a patent either valid or infringed within recent history.' He goes on to explain in detail where Hormel could operate and be within the Eighth Circuit's domain. Hormel did not take this advice either: it operated, alas for it, in the Tenth Circuit.

Central Soya Co., Inc. v. Geo. A. Hormel & Co., 723 F.2d 1573, 1581 (Fed. Cir. 1983).

[4] However, this language was quoted "up front" in a subsequent 1983 opinion, *Central Soya Co., Inc.*, 723 F.2d at 1577, in affirming a finding of willful infringement:

> It is necessary to look at "the totality of the circumstances presented in the case," *Underwater Devices Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1390, 219 U.S.P.Q. 569, 577 (Fed. Cir. 1983), in determining whether a reasonable person would prudently conduct himself with any confidence that the courts might hold the patent invalid.

However, interestingly, *Milgo* never discusses the "totality of the circumstances" standard in its willful infringement section. Instead it is discussed only in connection with the calculation of lost profits.[5]

The Law of Willful Infringement In the Federal Circuit From 1985-1986

Presumably while potential infringers were contemplating their "affirmative duty" and likely reassessing their positions in pending cases, the Federal Circuit was reassessing its position on willful infringement. Of course, in the important decisions in the first two years the court merely affirmed district court findings of willful infringement.[6] However, the strong language used appeared to suggest that the Federal Circuit would take a very tough stance.

Nevertheless, in the middle of 1985, Judge Davis, writing for a panel including Senior Circuit Judge Skelton and Chief Judge Markey, issued *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853 (Fed. Cir. 1985). This case may have changed the direction of the court on the willful infringement issue. The Federal Circuit affirmed a district court finding of no willful infringement despite the absence of any non-infringement or invalidity opinion from counsel. In response to the patent owner's suggestion that *Underwater Devices* compelled a finding of willful infringement under these circumstances, Judge Davis replied that:

> However, as we stated in that case, the district court should always look at the totality of the circumstances. This includes whether Otari secured legal advice and whether it reasonably felt that its activities fell within its own claims which may have been patentably distinct.

King Instrument Corp., 767 F.2d at 867.

Here, it seemed that the infringer had completely shirked its "affirmative duty" to obtain an opinion of counsel. Perhaps the infringer was successful because it did not rely on an opinion of counsel defense. In both *Central Soya* and *Underwater Devices* the court made note of the

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[5] The court, referring to the uncertainty inherent in assessing damages, stated that "[v]iewing the entire circumstances of the case, the damage assessment appears equitable and conservative." *Milgo Electronic Corp.*, 623 F.2d at 665. Thus, to the extent that the language of "duty" and "totality of circumstances" are incompatible, this is not attributable to the Tenth Circuit.

[6] Perhaps one of the first to note this factor was the district court in Corporate Communications Consultants, Inc. v. Columbia Pictures Industries, Inc., 576 F. Supp. 1429, 1438 (S.D. N.Y. 1983); see also Gholz, "Willful Infringement and 'Magic Words' — The Effect of Opinions of Counsel on Awards of Increased Damages and Attorney Fees", 66 J.P.O.S. 598 (1984).

"cynical" advice offered in the relied upon opinions. Now, in *King Instrument,* we find out that perhaps if the opinions were never relied on (and therefore not produced) the infringers in the prior cases, like Otari, might have avoided being assessed increased damages.[7]

The court found that the infringer's mistaken belief that having his own patent would shield it from infringing another patent was a factor in avoiding a finding of willful infringement.[8] If the infringer had sought the advice of counsel most certainly this facet of its defense would have been lost.

In *American Original Corp. v. Jenkins Food Corp.,* 774 F.2d 459 (Fed. Cir. 1985), the Federal Circuit affirmed another decision of a district court finding no willful infringement despite the absence of an opinion of counsel. In this case it was enough that when the infringer heard about the patent he asked a third party supplier to "proceed rapidly to aid them in avoiding a lawsuit involving [the] Marvin [patent]" and subsequently made changes "in the hope of avoiding infringement." *American Original Corp.,* 774 F.2d at 465. The court found that:

> Although the presence or absence of an opinion of counsel is pertinent evidence in determining good faith, the determination is based on "the totality of the circumstances presented in this case. . ." *Underwater Devices Inc. v. Morrison-Knudsen Co.,* 717 F.2d 1380, 1390, 219 U.S.P.Q. 569, 577 (Fed. Cir. 1983); *see also King Instrument,* slip op. at 32, 226 U.S.P.Q. at 412.

American Original Corp., 774 F.2d at 465.

Judge Davis, who also wrote the *King Instrument* case, tried to explain in *dictum* in *Machinery Corp. of America v. Gullfiber AB,* 774 F.2d 467 (Fed. Cir. 1985), how "duty" in *Underwater Devices* became only a "factor" in *King Instrument.* Judge Davis explained that:

> That opinion *[Underwater Devices]* held that breach of this duty is merely one of the factors to be considered in ascertaining an infringer's state of mind. 717 F.2d at 1390, 219 U.S.P.Q. at 576. There is no *per se* rule that an opinion letter from patent counsel will necessarily preclude a finding of willful infringement, *see e.g., Central Soya Co. v. Geo. A. Hormel & Co.,* 723 F.2d 1573, 220 U.S.P.Q. 490 (Fed. Cir. 1983) (an opinion letter must be written in good faith and not disregarded), nor is there a *per se* rule that the lack of such

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[7] This concern has not escaped Chief Judge Markey who pointed out that, "[i]nfringers should not escape a finding of willfulness by merely denying themselves counsel's advice while relying on opinions of lay-employees." Rolls-Royce Ltd. v. GTE Valeron Corp., 231 U.S.P.Q. 191, 192 (Fed. Cir. 1986).

[8] Judge Markey in reviewing *King Instrument* points out "that someone has a patent right to exclude others from making the invention claimed in his patent does not mean that his invention cannot infringe claims of another's patent broad enough to encompass, i.e., to dominate his invention." *Rolls-Royce Ltd.,* 231 U.S.P.Q. at 191 n.9.

> a letter necessarily requires a finding of willfulness. *See e.g. King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 867, 226 U.S.P.Q. 402, 412 (Fed. Cir. 1985) (affirming the district court's finding of no willful infringement despite the failure of an infringer, who knew of the existence of the patent, to procure legal advice of counsel before the initiation of infringing activities).

Machinery Corp. of America, 774 F.2d at 472.

In *Radio Steel & Mfg. Co. v. MTD Products, Inc.*, 788 F.2d 1554, 1559 (Fed. Cir. 1986), Judge Friedman noted that the pre-1985 Federal Circuit cases relied on by the patent owner affirmed findings of willful infringement. This case involved an oral opinion given at a meeting by outside patent counsel without review of prior art or prosecution history. The court explained why it affirmed the finding of no willful infringement:

> In those [pre-1985] cases we referred to the facts relating to opinions by patent counsel to explain why the factual finding in each case of willful infringement was not clearly erroneous. *Underwater Devices, supra* at 1390, 219 U.S.P.Q. at 576. We have never suggested that unless the opinion of counsel met all of those requirements, the district court is required to find that the infringement was willful.

Radio Steel & Mfg. Co., 788 F.2d at 1559.

At this point one would likely feel quite confident that if he or she prevails on willful infringement in the district court, absent a very unusual finding there, he or she would prevail on the point at the Federal Circuit, whether or not willful infringement was found.[9] Even today this rule of thumb may have some useful value in predicting case outcome.

However, in June 1986 the Federal Circuit reversed a district court's failure to find willful infringement under circumstances that did not seem notably different from other decisions that were affirmed. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565 (Fed. Cir. 1986). This case was, however, similar to both *Central Soya* and *Underwater Devices* in that a somewhat damaging memorandum came up with regard to willful infringement.[10]

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[9] District courts were reversed or remanded in State Industries, Inc. v. A.O. Smith Corp., 751 F.2d 1226 (Fed. Cir. 1985) (no patent had issued when the infringer began production); Yarway Corp. v. Eur-Control USA, Inc., 775 F.2d 268 (Fed. Cir. 1985) (increase of damages without finding of willful infringement); CPG Products Corp. v. Pegasus Luggage, Inc., 776 F.2d 1007 (Fed. Cir. 1985) (company continued infringing because it was a subsidiary of General Mills).

[10] Like the memorandum in both *Central Soya* and *Underwater Devices*, the memorandum here pointed out the advantages of forum shopping, asserting that "American courts have divergent attitudes toward patents and if this question goes to court, it is important that we take the initiative so that we can choose the right court." *Kloster Speedsteel AB*, 793 F.2d at 1578.

The Federal Circuit noted that the failure to rely on an opinion of counsel, "in alleged reliance on the attorney-client privilege", would warrant the conclusion that the infringer either obtained no advice or counsel or did so and was advised that its importation and sale of the accused products would be an infringement of valid U.S. patents. *Kloster Speedsteel AB,* 793 F.2d at 1580. While this position has a clear appeal, it must also be considered that in some circumstances counsel may fear the kind of intense scrutiny given to opinions of counsel in earlier cases. Also, client and counsel may in some circumstances be legitimately concerned about making trial counsel a material witness in the case.

The memorandum, written by a non-lawyer long before the infringing activity began and before one of the two patents issued, charted a course to challenge the patents based at least in part on conversations with patent counsel. It outlined patent validity investigations to be undertaken and assessed the possible damages if the company lost. However, the memorandum ambiguously noted that:

> If enough solid prior art are [sic] found by them, we can bring an action against Crucible and begin to sell ASP-steel in the U.S.A. If the new patent claims, on the other hand, should be judged to be valid, we will be closed out of the American market for the foreseeable future.

Kloster Speedsteel AB, 793 F.2d at 1577.

The district court, according to Judge Markey, found that the memorandum: (1) was based on the infringer's assumption that it would be infringing, and (2) assumed that the patent is valid and infringed.[11] *Kloster Speedsteel AB,* 793 F.2d at 1578.

Since no patent had issued at the time of the memorandum, the infringer had no choice but to assume infringement. As to validity, it was clear that the memorandum presumed validity at least for discussion purposes but most clearly charted a strategy to try to show the patent was obvious. Nevertheless, the Federal Circuit found that the district court's underlying finding was that the infringer proceeded with its in-

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[11] In its own words, the district court stated that:

> First, Dr. Hellman's memorandum was based upon the assumption that defendants were infringing plaintiff's patent claims, as to which assumption he stated "we have no possibilities for checking on this ****" Second, based upon the assumed premise that plaintiff's patents were valid and being infringed by defendants, Dr. Hellman charted a strategy to check patent validity; contest patent validity; and, in the process, to get defendant's products into the United States market. Finally, Hellman assessed the costs and prospects of litigation upon the further assumption that "the evaluation give the right result."

Crucible, Inc. v. Stora Kopparbergs, AB, 594 F. Supp. 1249, 1264 (W.D. Pa. 1984).

fringement on the assumption, as stated in the memorandum and found by the district court, that the patents were valid and would be infringed. *Kloster Speedsteel AB,* 793 F.2d at 1580. Of course, this stance preceeded the infringing activity and there is nothing to indicate that the infringer continued in this state of mind up to the date when the infringement began.

Finally, in the most recent case involving no opinion of counsel, the Federal Circuit affirmed a failure to find willful infringement based on the finding that the infringer made bona fide efforts to avoid infringement by attempting to "design around" the claimed invention. *Rolls-Royce Ltd. v. GTE Valeron Corp.,* 231 U.S.P.Q. 185, 191 (Fed. Cir. 1986). Chief Judge Markey explained that even though the patent owner's arguments had "some merit":

> This court does not sit to reweigh the evidence presented to the district court, nor will it draw its own inferences, nor make its own findings. It will not reverse unless the inferences drawn and facts found by the trial court are on the full record so unsupported as to have been the result of clear error.

Rolls-Royce Ltd., 231 U.S.P.Q. at 192. Absent a more clearly defined standard for willful infringement, the Federal Circuit appears to conclude that its hands are tied.

Conclusion

It is clear that in most instances the Federal Circuit will affirm the district court's finding on willfulness. However, in rendering advice to clients who do not have clearly competent opinions of counsel to rely on, this really gives little guidance in rendering sound advice in the period prior to a district court opinion.

Where the client has an opinion but the opinion is of doubtful or possibly negative value, an argument may exist for relying on attorney-client privilege while asserting other factors in defense of the willful infringement charge. One must keep in mind of course Judge Markey's statement that a negative "conclusion" may be drawn from the failure to produce the opinion.

When counsel for the patentee can find opinions, or other documents, arguably showing that the infringer's state of mind was one of disregard for the patent, the possibility of finding willfulness both in the court of appeals and the district court will be enhanced. Presumably, such documents always take on a "darker" tinge when examined after the conclusion has been reached that there is infringement.

In any case, a competent opinion of counsel will most likely avoid all of these problems. Thus, the cautious will continue to obtain timely,

thorough and competent opinions of counsel before embarking with new products.

Despite its somewhat uncertain birth, the "totality of the circumstances" standard for judging willful infringement is most certainly here to stay. Nevertheless, the case law still clearly leaves the Federal Court room to evolve either a "softer" or a "harder" policy on willful infringement, or to continue to decide each case on its own merits.

INTELLECTUAL PROPERTY RIGHTS AND BIOTECHNOLOGY***

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Pragmatism is a characteristic of the American people, and this virtue was never so visible as when the U.S. patent system developed in the nineteenth century. The government's offer that it will grant a first inventor exclusive use of his invention for seventeen years in exchange for "a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same,"[1] was an offer that many inventors found hard to resist in those early years of the Republic and one that many inventors find hard to resist today.

After 1830, it was also required that the inventor furnish a model of his invention to the patent office for the purpose of exhibiting the in-

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[1] 35 U.S.C. 112. See E.C. Walterscheid, "Insufficient Disclosure Rejections," in six parts, *Journal of the Patent Office Society,* 62(April 1980):217-228; 62(April1980):229-252; 62(May 1980):261-289; 62(June 1980):361-381; 62(July 1980):387-418; 62(September 1980):546-564.

vention "advantageously [in] its several parts."[2] These requirements were changed in 1870, and by 1880, "models have been required only rarely and in special cases."[3] One special case may involve the remarkable hybridomas that are used today to produce monoclonal antibodies, one of the most valuable of the products to have emerged from the rapidly growing biotechnology industry.[4] Since 1959, the Patent Office has held that, with regard to certain living inventions, a deposit of the microorganism in a culture collection is recommended in order to satisfy the disclosure requirement.[5] This practice has been applied to the recently developed hybridoma inventions, resulting in protests by many industry representatives.[6]

It is somewhat puzzling why such a relatively inexpensive and unambiguous disclosure practice should be greeted with such hostility by hybridoma owners. After all, they are quite aware that the Federal government does not give inventors the exclusive right to use their inventions without asking for something in return. The hybridoma inventors know full well that their statutory benefits come only in exchange for disclosing their inventions. Why then complain about the disclosure they are required to make, especially when a sure-fire, low-priced method of disclosure is available? The purpose of this paper is to solve this puzzle.

Our solution, it will be seen, builds on an approach that has been suggested by Edmund W. Kitch as early as 1977.[7] According to Kitch, patents perform an important "prospect" function. That is, they map out a territory that "belongs" to the patent owner (or his assignee), and tres-

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[2] K.J. Dood, "Patent Models and the Patent Law: 1790-1880," *Journal of the Patent Office Society II,* 65(May 1983):235-264.

[3] Ibid., p. 235.

[4] Ibid., p. 274. *The Wall Street Journal* reported that in 1985 "most of the significant products now nearing market are medically related and primarily are based on monoclonal antibodies and recombinant DNA techniques," D. Stipp, "Biotechnology Becomes Business in Transition," *The Wall Street Journal* (3 September 1985):xx-xx.

[5] I.V. Cooper, *Biotechnology and the Law* (New York: Clark Boardman Co. 1987, revised); sec. 5.02. Strictly speaking, the patent office does not have statutory authority for requiring such a deposit. The deposit route is sanctioned and encouraged by the patent examiners as we discuss below.

[6] See Office of Technology Assessment, *Commercial Biotechnology: An International Analysis* (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-BA-218, January 1984), pp. 388-393.

[7] E.W. Kitch, "The Nature and Function of the Patent System, *Journal of Law and Economics,* 20(October 1977):265-290.

passers are advised to stay away![8] Kitch's contribution extends far beyond standard textbook discussions in which patents are described merely as contracts between the inventor and the government. The inventor gains the right to exclude others from practicing the invention in exchange for disclosure.[9] Kitch investigated how patents *function* in a competitive market economy beyond this simple contractual arrangement. We shall continue this study of how patents function by arguing that patents often advertise the existence of "know-how" and function as "invitations to deal in know-how" to potential licensees. That explains why the biological inventors object when the patent office encourages the disclosure by deposit of hybridoma cultures.[10] They object because their time-worn expectations about the patent bargain have been disappointed. Depositing a hybridoma and issuing a patent constitute a "super-disclosure" which leaves them little else to sell in the form of "know-how".

We shall organize our discussion in four parts. In section 1 we offer a short description of the hybridoma technology and the nature of the resulting inventions. In section 2 we review the traditional view that patents and trade secrets are alternative, and largely mutually exclusive, methods of protecting inventions. In section 3 we offer evidence in support of the basic thesis that patents do not disclose all that is necessary to replicate the invention. In section 4 we relate these ideas to the specific issue of the depository requirements surrounding hybridomas, and a concluding statement follows explaining how these findings solve the puzzle of the protesting hybridoma owners.

I.

The method of hybridoma technology permits the laboratory scientist to fuse a valuable but unfortunately short-lived antibody-producing B-cell with an infamously immortal cancer cell (or myeloma) to produce

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[8] "One reason the prospect function of the patent system may have been so long overlooked is that the 'hornbook' rule is very misleading — the inventor may not claim more than he has invented, and the claim marks the outer bounds of his rights. . . . [T]he rule is misleading, because the invention as claimed in the patent claims and the physical embodiment of the invention are two different things," Ibid., p. 268.

[9] For example, Peter D. Rosenberg wrote in his well-known treatise on patents, "The inventor makes a truly Faustian bargain with the sovereign, exchanging secrecy, of indefinite and of possibly perpetual duration, for ephemeral patent rights," in idem., *Patent Law Fundamentals* (New York: Clark Boardman, 1980), sec. 1:02.

[10] *Commercial Biotechnology*, p. 388. Cf. M. Hofer, "U.S. Biotechnology Considerations — A Corporate View," *Biotech 85 USA* (Online Publications, Pinner, UK 1985): 24. Mr. Hofer is an attorney with Johnson and Johnson Corp.

a hybrid cell that is comething of a perpetually producing antibody factory.[11] The objective is to produce large quantities of antibodies, Uniform antibodies are part of the human-defense system capturing invading foreign bodies (that is, antigens) by a bonding process. Once bonded, the human body disposes of the foreign bodies as ordinary waste material. The possibility exists of creating "magic bullets" of antibodies immunizing individuals against specific diseases. Certainly, there is little doubt about the immense commercial advantages hybridomas hold out as a commercially viable way of producing large quantities of human antibodies. Prior to the invention of hybridomas, we did not know how to produce large quantities of monoclonal human antibodies.[12]

Before we summarize the legal and commercial issues surrounding the creation of property rights in hybridomas, it may be useful to say something about the technology itself. The father of monoclonal technology was Cesar Milstein who, as early as 1975, came up with the idea of fusing a single spleen cell to a cancer cell as a method of producing antibodies. The result was a "spleen cell [that] would spew out a single antibody, and the cancer cell would multiply forever." His research in collaboration with George Kohler led to a series of discoveries about the genetic control of the synthesis of antibodies.[13]

It is not clear why Milstein and Kohler did not themselves apply for a patent. It may have been the noncommercial character of the Medical Research Council Laboratory of Molecular Biology in Cambridge (U.K.) that simply encouraged these investigators to dedicate their discoveries to the public. On the other hand, the cell-fusion techniques they used were, in their words, "well-established," and it may have been that the scientists feared their invention would fail for want of novelty.[14] Whatever the reasons, it became commonplace for inventors of new hybridomas to patent their microorganisms, produced by applying the methods pioneered by Milstein and Kohler, after the Supreme Court in 1980 decided that a living microorganism was patentable subject matter under the U.S. laws.[15] The patent office has continued to follow the practice first

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[11] Cesar Milstein, "Monoclonal Antibodies," *Scientific American*, 243(October 1980):66.

[12] Ibid.

[13] Ibid.

[14] Ibid. See letter to the editor of *Science* from Hilary Koprowski and Carlo Croce 210(October 17, 1980):248.

[15] Diamond v. Chakrabarty, 447 U.S. 303, 100 S. Ct. 2204, 65 L. Ed., 2d 144. Also, owners of microorganisms may patent their "improvements" on the original Milstein and Kohler technique if these improvements meet the statutory requirements of being novel, useful and nonobvious.

formulated in 1959 in response to a patent application for an antibiotic produced by fermentation. This patent was denied because, from the written description, it was virtually impossible to reproduce the organism. The Patent Office Board of Appeals indicated that it would have reached a different position had the inventor dealt "with a known organism which had a well defined source."[16] Since that time, firms such as the American Type Culture Collection of Rockville, Maryland have built a successful business by providing the facilities for the collection and maintenance of cultures for patent purposes.[17] Through the development of this cottage industry, inventors of new microorganisms have a cost-effective way of satisfying the patent office disclosure requirements.[18]

The patent owner must maintain the culture at the depository for the life of the patent, and in the U.S., once a patent is issued based on a deposit, any individual may go to the depository and take a sample. A number of hybridoma patent owners object to the practice of making their deposits available to the general public at little or no cost. They complain that too much information is being diffused and disseminated since the disclosure that accompanies the transfer of the culture involves information that, as patent owners, they might have been able to sell through a "know-how contract."[19] Let us examine the business aspects of these statutory practices in more detail.

II.

Inventors who use the Milstein process *may* apply for patents on improvements of that technology as well as the microorganisms themselves. The word "may" is used because the inventor of a hybridoma is certainly not obligated to patent his invention or his process and, under circum-

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[16] Ex parte Kropp, 143 U.S.P.Q. 148, (POBA 1959):153. Cf. Cooper, *Biotechnology*, 5-11.

[17] For a listing of firms in this cottage industry, see Cooper, *Biotechnology*, p. 5-47 and p. 5-50.

[18] Ibid, p. 5-16 and p. 5-18.

[19] Inventor-hybridoma owners complain that the distribution of culture-samples to "members of the public" (read "competitors") amounts to giving away their invention plus all the "know-how." Certainly they are exaggerating the extent of the loss. The knowledge of how to nurture and sustain a small quantity of hybridoma culture is not the same knowledge of how to "scale-up" and maintain a maximum sustainable yield in large, industrial vats. This knowledge (assuming it exists) must be either "reverse engineered" or else purchased by a "know-how" contract. Our thesis in this paper depends only on the fact that much valuable "know-how" is being disseminated by way of deposit-culture practice. Certainly there is something more to be learned when making the transition from laboratory to factory. Cf. E.L. Gaden, Jr., "Production Methods in Industrial Microbiology," *Scientific American*, 245(September 1981):180-197.

stances we shall outline below, may keep either the microorganism or the method of manufacture a secret. The hybridoma is a living "capital good" valued (only) because it itself produces a commercially valuable substance, a particular antibody. But unlike machines and other equipment, this capital good, when nurtured in a favorable environment, can reproduce itself.[20] The purchaser of an antibody cannot without expense and trouble work back to the shape and genetic character of the hybridoma itself. There are few examples in the history of technology as dramatic as this in which an invention may be used in complete secrecy. We have a case that goes beyond a mere "non-informing public use" of an invention to an almost completely "secret use" of that invention.[21] The purchaser of the antibody product has virtually no way of inferring that the factor of production used to extract the antibody was in the "shape" of a colony of hybridomas. It may just as well have been a colony of rabbits from whose organs selected antibodies have been repackaged and sold for human purposes.

It will be helpful at this point to resort to an imagined conversation between a vice president of research of a biotech firm and his trusted attorney. They are discussing whether their firm should patent their hybridoma-invention or instead decide to keep it a trade secret.

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[20] Gaden, "Production Methods," pp. 180-197.

[21] The distinction between "non-informing public use" and "secret use" may be explained as follows: When the brand name mouthwash, Listerine, was placed on the market, the competitors of Bristol-Myers did not know how it was made. They tried to reverse engineer this new product starting from the product itself. This is a non-informing use of an invention. Consider now a human antibody produced by a hybridoma. The invention is the hybridoma, and what is sold is just in other words the ordinary antibody. The hybridoma can be used "secretly" without informing anyone that an invention of this sort exists. Competitors might assume the antibodies came from the spleens of laboratory rats. This is a "secret use" of an invention. Realistically, any company marketing a pure human antibody at a relatively lower price would signal their competitors that a hybridoma-culture scaled up to full-scale production now exists. Strictly speaking, however, we could design a pricing policy so that the commercialization of the hybridoma would remain a complete secret. See Gilman v. Stern, 114 F 2d. 28 and Dunlop Holdings Ltd. v. Ram Golf Corp., 254 F. 2d 33, and P. Burks, "The Non-Informing Public Use Concept and Its Application to Patent-Trade Secret Conflicts," *Journal of Patent Office Society,* 63(September 1981):459-482.

Att.: If this were the sort of product that a competitor could reverse engineer with only a small R&D investment, then I would advise that we go the patent route. What we have here is a product that can be used to produce another product. The first product, our invention, can remain a secret while it produces a derivative product that we can produce and sell more cheaply than our competitor. I would advise, in this case, that we give serious attention to keeping our invention a trade secret.[22]

V.P.: How realistic is it to suppose we can do that?

Att: It is quite realistic. We would have to establish a separate section of the plant and restrict entry there to only those authorized personnel who have signed a "nondisclosure agreement." In addition we must take all reasonable measures to guard our information against industrial spies and take particular precautions against the theft of a sample of our hybridomas.[23] I would also advise that you pay all employees in this department a salary significantly greater than their opportunity wage to cut down on employee turnover.[24] Employee stock option plans would also be a fairly sensible form of "golden handcuffs" to keep information in our firm.[25] The old proverb, "He is helped who helps himself," applies particularly in the area of trade secret law. If we take these and other precautions, the courts will protect our firm against the misappropriation of our trade secrets.[26]

V.P.: The trade secret route must involve some disadvantages. Tell me what they are.

Att.: One risk with taking the trade secrecy route is that one of our competitors may by chance come across the type of hybridoma we are using at our factory and invest funds to produce one himself. We cannot stop our competitor if this happens since a trade secret owner is not protected against another who independently and by "fair means" discovers the secret himself.[27] The law protects the cautious possessor of a trade secret only against the *misappropriation* of his information, not against its honest rediscovery.

V.P.: I think the patent route is more to my liking. If we qualify for a patent and, assuming we are the first inventor of this hybridoma, then we can prevent others from using this hybridoma for just about any purpose for a period of years. More likely, we shall license several firms to operate under the patent and collect royalty income. Now that patents seem so attractive to me, perhaps you can explain what are their disadvantages.

Att.: Through trade secrecy the possibility exists of keeping the hybridoma a secret indefinitely, but with a patent, 17 years of the right to "exclusive use" is all we get.

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[22] R. Milgrim, *Trade Secrets*, New York. Matthew Bender, 1978, and S.N.S. Cheung, "Property Rights in Trade Secrets," *Economic Inquiry*, 20(January 1982):40-53.

[23] Emphasis should be placed on the word "reasonable." The law does not require trade secret owners to take extraordinary methods to discourage industrial espionage, see E.W. Kinter and J. Lahr, *An Intellectual Property Law Primer*, 2d ed., New York, Clark Boardman Company, 1982, pp. 182-184.

[24] Cf. C. Shapiro and J.E. Stiglitz, "Equilibrium Unemployment as a Worker discipline Device," *American Economic Review* (June 1984):433-444.

[25] E.W. Kitch, "The Law and Economics of Rights on Valuable Information," *Journal of Legal Studies*, (December 1980):683-723.

[26] Kinter and Lahr, *An Intellectual Property*, pp. 146-155.

[27] P.D. Rosenberg, *Patent Law Fundamentals* (New York: Clark Boardman, 1980):3-8.

V.P.: Considering the rapid pace of technological change in our industry, I would be delighted frankly with a 17 year right to exclusive use. The probability that our invention will be totally obsolete in 17 years is so high that the advantage of trade secrecy in providing protection beyond that time frame is insignificant.

Att.: That is a valid point, but, of course, there is another way to look at it. If the pace of technological change is very rapid, patenting may not be cost effective. In fact, a patentable invention such as our hybridoma, could become outdated before the patent issues, which is generally two years or longer after the application is filed.[28] R. Laurence argued at a recent Biotech conference that, "If the invention is only of short term advantage, for example, a new micro-organism that will eventually be superceded in one or two years, then patent protection is not worthwhile, and the policy should be secrecy or secrecy plus knowhow licensing."[29]

V.P.: Yes! Before I joined this company, I worked for a large pharmaceutical firm where the pace of technological change was much slower. We developed new drugs for human consumption and, as a result, attracted the close scrutiny of the FDA. Their stringent testing and reporting requirements translated into very high development costs and long time spans between invention and commercialization. We were investing, on the average, seven years and $50 million to develop and test each new therapeutic agent.[30] These heavy costs, combined with relatively short, technological leads over competitor activity, persuaded us to be very patent intensive. We had much to gain from the 17 year right to the exclusive use of our inventions and would have had too much to lose through our competitors' reproduction of our invention by "fair means" had we relied on trade secrecy.

Att.: That is quite a contrast to the market conditions facing our firm. It is true in the biotechnology industry, broadly defined, that firms in the pharmaceutical/chemical mode tend to be more patent intensive, and firms, such as ours, in the "high tech" mode tend to be more dependent on trade secrecy.[31]

V.P.: Let's pursue this further. From the point of view of our firm's short-term and long-term interests, are there other disadvantages to patenting?

Att.: From the commercial point of view, I suppose the largest disadvantage of a patent is that we must educate our competitors abouth how to reproduce the invention and also how to use it in what we consider to be its "best mode of use" at the time we file for the patent.

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[28] Reid G. Adler, "Biotechnology as an Intellectual Property," *Science* (April 27, 1984):361.

[29] Robin Laurence, "Procedures and Pitfalls in Patent Protection," *The Proceedings of Biotech 84: Europe* (New York: Online Publications, 1984), p. 123.

[30] Despite recent efforts made by the FDA to reduce the testing and reporting burdens on U.S. pharmaceutical companies, the cost and time commitments that U.S. firms must make to bring new products onto the market remain staggering. See R.W. Hansen, "The Pharmaceutical Development Process: Estimates of Development Costs and Times, and the Effects of Proposed Regulatory Changes," in *Issues in Pharmaceutical Economics*, ed., R. Chien (Lexington, MA: D.C. Heath & Company, 1979).

[31] We base this conclusion on interviews conducted with patent attorneys in the greater Boston area during the summer of 1984. It was confirmed in a telephone interview with Jorge Goldstein of Saidman, Stern, Kessler and Goldstein, Law Firm (Washington, D.C.) on September 27, 1985.

V.P.: I see what you mean. It states here in Section 112 of 35 U.S.C. that:

> The [patent] specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.[32]

I am not sure I understand how we can describe a hybridoma with the degree of accuracy required by the law. What happens if they don't like our description?

Att.: You mean, what do we do if our description is not "enabling," that is, if it does not make it possible for someone skilled in the relevant arts to duplicate the invention without having to engage in "undue experimentation"?[33]

V.P.: Yes, then what happens?

Att.: The patent examiner will not permit the patent to issue. If he makes an error and allows the patent to issue, a future subsequent infringer will surely defend against us by alleging that our patent is "nonenabling" and hence invalid.[34]

V.P.: That could be a serious financial loss.

Att.: What many hybridoma inventors do, in order to be certain that they fulfill their duty to disclose, is to deposit a culture of their new organism at one of the leading commercial culture collections. Depositing a culture containing the organism is a guaranteed method of meeting the enabling requirement of the patent laws.

V.P.: Is this absolutely necessary?

Att.: You have raised a debatable issue. If we were in the business of producing *naturally occurring* microbes, the answer would be "yes"! The case law clearly establishes the depository requirement for the enablement of patent claims.[35] However, no reported case, especially one from an appellate authority, has occurred as yet to clarify the application of existing case law to the products of our business, namely, hybridomas or *genetically engineered* microbes. As reported by J. Goldstein at a recent Biotech conference, "Some [patent] examiners will readily accept, when presented with sufficient evidence, that the case law is not applicable to hybridomas, while others will not."[36] I agree with Goldstein that there is a considerable lack of uniformity at the U.S. Patent and Trademark Office when applying existing case law during to the examination process.

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[32] 35 U.S.C. 112.

[33] E.C. Walterscheid, "Insufficient Disclosure," *Journal of Patent Office Society,* VI:542-562.

[34] Ibid.

[35] This case law includes *Ex parte Kropp* 143 U.S.P.Q. 148 (Bd. App. 1959), *Merck & Company v. Chase Chemical Co.* 155 U.S.P.Q. 139 (DC NJ 1967), *In re Argoudelis et al* 434 F. 2d 2390 (CCPA 1970), *Feldman v. Aunstrup* 517 F. 2d 1351 (CCPA 1975), *Ex parte Jackson* 217 U.S.P.Q. 804 (Bd. App. 1982), and *Tabuchi et al v. Nubel et al* 194 U.S.P.Q. 521 (CCPA 1977).

[36] Jorge A. Goldstein, "Legal Administrative Development in Depository Practice — U.S. and Abroad," *The Proceedings of Biotech 85: USA* (New York: Online Publications, 1985):13.

V.P.: There must be some way other than deposits to satisfy the "enablement" requirement!

Att.: Some believe that there are other ways. I.P. Cooper says it must be possible "to describe a novel microorganism and the manner and process of making it merely by stating its genotype, base pair by base pair." In Cooper's view a culture deposit would not be needed.[37] The disadvantage with Cooper's proposal (about how to prepare a written patent without a deposit) is that, if the infringer declares that the disclosure was all the time invalid and the courts agree, then we stand to lose our patent completely. I recommend that, if you decide to go the patent route, that we play it safe and deposit a culture of our invented hybridoma cell so that our patent will disclose the invention completely.

V.P.: How about the timing? When must we make the deposit?

Att.: The question is surrounded by some uncertainty because of a recent court decision *(In re Lundak)*[38] and an appeal before the Court of Appeals for the Federal Circuit. Before *Lundak*, it was clearly established that a culture had to be deposited at the time of the patent filing although the culture was not made available to the public until the collection center received notification that the patent had been issued.[39] In the *Lundak* case the deposit was made several days after the filing date, and the issue was whether this deposit was sufficient to satisfy the technical requirement of 35 U.S.C. cf 112 that disclosure be at the exact "time of filing." A divided Board of Appeals of the Patent and Trademark Office ruled that this was not sufficient, but the Court of Appeals for the Federal Circuit has not as yet passed judgment on the appeal. According to J. Goldstein, "If the Federal Circuit was to hold in favor of appellant Lundak, then, presumably, as a logical corollary, a depository for United States purposes need not occur until a notice of allowance has been received."[40]

V.P.: The timing of the deposit is of importance, but of greater importance is the distribution requirement after the patent has been issued. If we deposit the hybridoma culture, can we stipulate that samples of the culture *not* be distributed to the public without our permission?

Att.: Unfortunately, the law will not permit us to disclose by deposit and then hide the disclosure by restrictions. Once deposited, any person can take a sample.

V.P.: What is to prevent a stranger from coming in and taking a sample only to scale-up and secretly practice our patented factory with impunity?

Att.: Nothing at all. Furthermore, it will be difficult for us to track the technology once it is out of our possession.[41]

V.P.: Now I understand why you first recommended that we consider going the trade secret route. The customary practice of depositing hybridoma cultures is outrageous! In order to gain patent protection, we have to not only disclose the invention to someone skilled in the art, but we have to disclose it to those unskilled in the art as well. How unfair!

Att.: I agree it is unfair.

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[37] Cooper, *Biotechnology*, ch. 5, pp. 53.

[38] *In re Lundak* 773 F. 2d 1216 (1985).

[39] Cooper, *Biotechnology*, ch. 5, pp. 5-37.

[40] Goldstein, "Legal Administrative Development, p. 14.

[41] G.M. Karny, "Biotechnology Licensing," *The Proceedings of Biotech 85: USA* (New York: Online Publications, 1985):143-144.

V.P.: In most areas of innovative research a patent discloses enough information to make it possible for a licensee to practice the invention after a reasonable expenditure of applied research monies. In many cases, the licensee also negotiates a technology "know-how" contract at the same time he negotiates the formal license agreement from the patent owner. This helps the patent owner learn about who is practicing the invention and, in addition, earns an additional source of revenue.[43] The sort of wholesale property transfer now accompanying culture deposits is too burdensome and quite a step beyond the traditional experience with patenting.[43]

Att.: I couldn't agree with you more. Indeed, even Congress has been informed of this difficulty although, in the past, bills have been proposed in Congress to require deposits of all microorganisms. Let me read you what the 1984 publication of the Office of Technology Assessment advised Congress about the deposit problem:

> . . . Although any valid patent must describe an invention with sufficient specificity so as to enable a person of ordinary skill in that technology to make the invention, there is a significant difference between describing an invention and actually turning it over to the other person. The know-how that is associated with the actual making and subsequent perfection of an invention clearly provides the inventor with an advantage over a competitor who must construct the invention from the description in the patent. Yet, in the case of a micro-organism, the invention must actually be turned over to any competitor who desires it. In essence, therefore, the holder of a patent on a micro-organism that produces a commercially useful polypeptide such as insulin must turn his or her "factory" (i.e., the micro-organism) over to competitors.[44]

V.P.: This is very disturbing. Could we protect our interests more effectively if we operate through our European subsidiaries? We could seek a European patent for the hybridoma and use Europe as a base for negotiating "licensing" and "know-how" contracts.

Att.: Absolutely not! The disclosure requirement for deposited biological material in Europe would create even more of a risk. At least in the U.S., the deposit is not made available to others until the patent issues. In Europe, on the other hand, disclosure of the deposited material occurs upon publication of the patent application.[45]

V.P.: But no patent right exists as of the publication date! Are you telling me that we have to turn over the keys to our factory to rival firms *before* we gain enforceable patent rights?

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[43] Kitch cited a 1977 National Science Foundation study by C.D. Hall in which it was found that of 45 technology license agreements, 24 involved the exchange of both patent rights and know-how, suggesting that "most know-how or trade-secret licensing takes place within the framework of patent rights," Kitch, "Nature and Function," p. 278.

[43] Office of Technology Assessment, *Commercial Biotechnology*, pp. 396-397.

[44] Ibid., p. 389.

[45] Goldstein, "Legal Administrative Development," p. 16.

Att.: Yes! In the words of M. Hofer, "Maintaining the invention as a trade secret becomes impossible upon publication of the European application. After publication and until a patent issues, the fruits of the patentee's invention become 'free for the picking' by anyone."[46]

V.P.: You've convinced me that patenting our invention either in the U.S. or in Europe would involve too much risk. Until some restrictions are placed on access to deposits, I suspect common law trade secrecy remedies will be the better friend of hybridoma inventors.

Att.: I agree. Let us go the way of trade secrets.

III.

In the previous section we have set out what some industry representatives consider to be major arguments against patenting certain microorganisms such as hybridomas. These industry representatives complain that they are disclosing too much, especially when they deposit a culture for public scrutiny. For most inventions, the patent process does not produce a level of statutorily mandated disclosure so high that the recipient of the patent document can *immediately* begin to practice the invention.[47] Hybridoma patent owners feel their inventions are handled in such as a way as to amount to an exception to this general rule.

Now all patents must contain information that is comprehensible to those "skilled in the art." The patentee's duty to disclose, to those skilled in the art, does not rise to that level of disclosure at which X's "skilled-in-the art" staff may immediately, and without much applied research expenditure, begin to practice the invention. Some experimentation is sanctioned by the courts so long as it is not "undue experimentation."[48] Again the definitions of these expressions are left up to the judgment of the courts. It is difficult to determine whether a small expenditure of company's resources over a large period of time is more "undue experimentation" than a huge expenditure over a few days. It is clear that the courts permit enough experimentation under their "disclosure standard" to make know-how contracts a complementary and valuable source of revenue for the patent owner above and beyond his licensing royalties.[49]

We get some indication about the extent to which patents have come to function as vehicles for advertising "know-how" when we examine the controversy over depositing hybridoma cultures for public scrutiny.

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[46] Mark A. Hofer, "U.S. Biotechnology Considerations — A Corporate View," *The Proceedings of Biotech 85: USA* (New York: Online Publications, 1985):30.

[47] E.C. Walterscheid, *Insufficient Disclosure Rejections,* Pt. V.

[48] Ibid., cf. D. Carlson, "The Best Mode Disclosure Requirement in Patent Practice," *Journal of the Patent Office Society,* 60(March 1978):171-197.

[49] Cf. Kitch, "Nature and Function," p. 278.

Here we have a commercial technology which by its very nature could be used secretly but, by common practice of the patent office, is disclosed through the culture depositories that leaves the patentee with much less of economic value in the way of undisclosed information than in other areas of technological research. As the hypothetical dialogue revealed, industry representatives are quite disturbed about the implications and ramifications of seeking patenting protection for hybridomas because they are encouraged to make a deposit of their hybridoma cultures. Some perceive that when, as a practical matter, patents do exactly what textbooks say they do, namely, *disclose* the invention, patents become a much too costly way of retarding the diffusion of the invention, and trade secrecy becomes the more attractive alternative.

It is important that we not jump to the other extreme and conclude that the cleverest patent application is one that itself refers to a "trade secret" which is an integral part of the process of reproducing the invention but which is not revealed in the patent document itself and must be licensed separately. This tactic is clearly a statutory violation, and such a patent would either not issue, or if by error it did issue, would probably be declared invalid in a suit by a subsequent licensee.

In *Flick-Reedy Corp. v. Hydro-Line Mfg. Co.*,[50] *F-R* had patented a sealing device for preventing the escape of fluid in a hydraulic cylinder. The patent required a "special tool" that was used to produce the appropriate machined surface but did not describe this tool. The president of F-R explained that they had intended to keep the tool a trade secret, and, as a practical matter, this meant that one skilled in the relevant art could not reproduce the invention except after extreme amounts of experimentation. The court held the Flick-Reedy patent invalid because the patentee had failed to meet his disclosure obligation as set out in the patent law. Specifically, Flick-Reedy had not disclosed the "best mode of use" of its invention.[51] After reviewing the *Flick-Reedy v. Hydro-line* holding along with several others, patent attorney D. Carlson described the responsibility of legal counsel as follows:

> . . . there is an obligation [under the patent laws] to disclose all pertinent information known by the inventor regarding best mode at the time of filing.[52]

But if we were to take Carlson's advice literally, it would seem that everything needed to replicate and practice the invention in its best mode of use must be disclosed. Indeed, this is how many scholars summarize the principal difference between patenting and maintaining trade

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[50] *Flick-Reedy Corp. v. Hydro-Line Mfg. Co.*, 351 F. 2d 546 (1965).

[51] Ibid., p. 189.

[52] Carlson, "The Best Mode," p. 189.

secrets. Patenting involves disclosure, and maintaining secrets involves nondisclosure. Our thesis is that the two activities, secrecy and patenting, are not in all ways mutually exclusive.[53]

It is emphatically not the law that the owner of a patent must draft a thick manuscript explaining both the replication of the invention and its best mode of use at the time of filing. The reality is that a significant proportion of patents that are licensed by patent owners are also part of a larger business arrangement that includes a "know-how" agreement[54]. This latter agreement obligates the patent owner to teach the licensee something vital to the successful exploitation of what is described in the patent application itself. But how do we describe that something extra?

Clearly, it is not likely to be a trade secret crucial to reducing the invention to practice since to withhold that would violate the standard set in *Flick-Reedy v. Hydro-Line*[55]. What is being withheld consists of a certain body of "know-how" in the possession of the patent owner that is not available to the licensee after he has examined the patent but is available to him after making some reasonable research expenditures. It is clear that patents are not invalid because they omit information. Patent documents are not intended to be "how-to-do-it" manuals analogous to kitchen cookbooks and self-help car repair manuals. Rather, they are a part of the literature of science disclosing a "core" amount of information. They also advertise the existence of "know-how," thereby inducing potential businesses to purchase the same. How do we classify this know-how?

In our view this information falls mostly into three categories:

1. The scientists and engineers of the invention-receiving firm (the licensee) may simply not be skilled enough perhaps having been out of graduate school somewhat longer than it is fashionable to admit. The know-how contract supplies remedial training, and this is perfectly legitimate since the invention receiving firm's personnel need to be brought up to the average skill-level of the information-transferring

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[53] W.L. Casey, Jr., J.E. Marthinsen and L.S. Moss, "Trade Secrecy and Patents: Complements or Substitute Activities?" MS Babson College, October 1978.

[54] Cf. C.D. Hall National Science Foundation study, cited by Kitch, "Nature and Function," p. 278.

[55] *Flick-Reedy Corp. v. Hydro-Line Mfg.* 351F. 2d 546 (1965).

firm (the licensor). This sort of know-how transfer is strictly remedial and corresponds exactly to the statutory language of the patent law.

2. The patent document is perfectly comprehensible to the invention-receiving firm (the licensee), but since the time of filing, it is clear that the invention-owning firm (the licensor) has developed better modes of use than it knew about at the time of filing. The law imposes no burden on the patent-owner to update his patent to reveal new improvements. To the extent the know-how agreement discloses these improvements or additional "variations on the patented theme," then quite clearly the patent itself advertises the existence of something else on stage but behind the curtain — something the customer needs to pay an additional price to see. As Kitch explained, the patent document performs a "prospect function."[56]
3. Finally, the know-how transfer agreement, by creating a communication network between the two teams of workers, promotes the transfer of a species of business information that the authors of this paper have elsewhere defined as "circumstantially relevant business information."[57] We wrote:

> This consists of a variety of bits and pieces of information that can have great commercial value yet may not meet the common law definition of trade secrecy or the statutory definition of patentable subject matter.[58]

The "missing information" now provided outside the four corners of the patent document by private contracting is a significant component of the process of technology transfer and an expected source of revenue to licensors.[59] When invention owners are faced with the prospect of giving away both their invention and much of the "know-how" itself, they understandably object. Disclosure, when it is too complete, disappoints the expectations of patent owners. In addition, it makes patents function in ways that depart quite considerably from established practice.

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[56] Kitch, "Nature and Function," p. 268.

[57] William L. Casey, Jr., John E. Marthinsen and Laurence S. Moss, "The Economic Impact of the Freedom of Information Act," *Journal of American Intellectual Property Law Association*, 12(1984):76-96.

[58] Ibid.

[59] See M.D. Rostoker, "PTC Research Report: A Survey of Corporate Licensing," *IDEA*, 24(1983-84):59-92.

IV.

We insist that the debate over the depository practices now prevalent in the biotechnology industry and the repeated complaint that too much disclosure is "unfair" to hybridoma owners, reveals much about the function patents have come to play in our modern, commercial society.

We have seen that the depositing of hybridomas in culture collections imposes a heavy disclosure burden on potential patent owners. Ordinarily, a patent owner expects to keep something for himself; something that can be packaged separately by way of a "know-how" contract. As a DuPont program manager of biomedical product licensing admitted:

> If technology transfer is viewed as a business opportunity, then even more creative and profitable possibilities arise. In addition to patents, [the biomedical industry] can sell and license its know-how. . . . Know-how is even more valuable property than a patent since it is confidential vs. a patent's public disclosure. . . . Today, in the electronics industry, the sale and licensing of know-how is part of the corporate culture.[60]

When vice presidents of research learn that their hybridomas must be placed on deposit and samples made available to the public, patenting becomes a significantly less attractive method of protecting inventors from the rapid diffusion of their inventions and the diminution of their economic rents.

We are now in a position to unravel the paradox and explain why industry representatives object to a fail-safe, relatively inexpensive means of disclosing their inventions when the conventional wisdom tells us that that is precisely what they must do when they apply for a patent. The puzzle is solved when we remember that the term, "disclosure," itself has become a term of art among patent attorneys and is a pseudo-disclosure of sorts permitting a secondary market of "know-how" to grow up around the existing patenting system. As Kitch pointed out, the composite system we have in operation today is probably preferable to a system without any patent monopolies at all and relying mostly only on

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[60] E.M. Chait, "Licensing and Technology Transfer in the Biotechnology Industry," in *The Proceedings of Biotech:*. Mr. Chait is Program Manager of Licensing at E.I. DuPont de Nemours & co., Biomedical Products Department. Cf., G. Karny, "Biotechnology Licensing," p. 148. Cf. R. Goldscheider, "Expert Witnessing, The Licensing Process and Intellectual Property Litigation," *Technology Licensing* (Practicing Law Institute, 1982) reprinted in A. Whipple, *The Law and Business of Licensing: Licensing in the 1980s* (New York: Clark Boardman, 1984), III: 3I-3I-32.

trade secrecy to promote what the U.S. Constitution calls "the progress of the useful arts."[61] However superior the U.S. composite system may be, it is functioning in a way that is *not* adequately described by the textbook literature.

Our purpose has been to offer still more evidence in support of Kitch's general thesis that patents have evolved into important vehicles for alerting their readers to the information-producing activities of their owners.[62] The information being offered in a patent, incomplete as it is, may still be worth the tax on consumer surplus we levy by providing the inventor or his assignees with an "exclusive right." The dissatisfaction of the hybridoma owners is only puzzling if we persist in believing that patent applicants are always on the look-out for low-cost methods of full disclosure. The opportunity cost of full disclosure is the foregone income that otherwise would be earned by the inventor in the "know-how" market. We suspect that hybridoma patent owners are representative of many other classes of patent owners in that they try to use patents in the same way Hollywood uses "coming attractions." The film clips whet your appetite for the film itself, but you still need to buy a ticket to get in to see the rest of the show!

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August 1986

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[61] Kitch explained, "The proposition advanced here is that a legal system which has trade secrecy and a patent system will better serve the public welfare than a legal system with only trade secrecy," in "Nature and Function," p. 275. Cf. S. Cheung, "Property Rights in Trade Secrets," *Economic Inquiry*, 20(January 1982):40 and Kitch, "The Law and Economics of Rights in Valuable Information," *Journal of Legal Studies* (December 1980):707.

[62] Cf. Casey, Marthinsen and Moss, "Trade Secrecy and Patents."

HISTORICAL ANALYSIS OF PRODUCT DISPARAGEMENT: TIME FOR A CHANGE?*

RICHARD P. BURGOON, JR.**

Introduction

"Consistency," in the legal-philosophical sense of utilizing old judicial opinions to solve new and unusual fact patterns, has always been a benchmark and is a necessary and satisfactory goal. Yet, as Justice Holmes stated,

> [f]or a rational study of the law, the black-letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics. It is revolting to have no better reason for a rule of law than that so it was laid down in the time of Henry IV. It is still more revolting if the grounds upon which it was laid down have vanished long since, and the rule simply persists from blind imitation of the past.... [I]t is true that a body of law is more rational and more civilized when every rule it contains is referred articulately and definitely to an end which it subserves, and when the grounds for desiring that end are stated or are ready to be stated in words.[1]

Such has been the course of product disparagement.

Analysis of the precedent setting product disparagement cases, and those subsequent cases that followed, indicates that one can be consistent with the past yet also recognize the complexities of a modern world. Therefore, *stare decisis,* an essential concept in the legal community, is acknowledged, while a rationale for dealing with the inadequacies of past decisions is explored.

**The author thanks Professor Thomas Field, Franklin Pierce Law Center and Mark Z. Dudley.

[1] "The Path of the Law," 10 Harv. L. Rev. 457, 469 (1897).

Historical Overview of Product Disparagement: *Boston Dialite* and *Prudential Assurance*

The genesis of product disparagement cases in this country may be found in two English cases. As has been noted,[2] the

> English cases... which deny jurisdiction to enjoin defamation are collected in *Boston Dialite Co. v. Florence Mfg. Co.*,[3] and *Prudential Assurance Co. v. Knott*.[4] These two decisions have exercised controlling influence in the United States.[5]

In *Dialite*, a bill in equity alleged that the defendant corporation, by its officers, "falsely, fraudulently and maliciously and for the purpose of injuring the plaintiff and divesting its trade, represented to plaintiff's customers that the articles manufactured by the plaintiff under its letters patent were manufactured in infringement of letters patent owned by the defendant corporation, and that the corporation was prosecuting a suit against the plaintiff corporation for such infringement."[6] The plaintiff sought an injunction prohibiting the continued publication of the false statements. With little discussion regarding the rationale behind its decision, the court rejected the plaintiff's request, stating:

> The jurisdiction of a Court in Chancery does not extend to cases of libel or slander or false representations as to the character or quality of the plaintiff's property, or as to his title thereto, which involve no breach of trust or of contract.[7]

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[2] Roscoe Pound in "Equitable Relief Against Defamation and Injuries To Personality," 29 Harv. L. Rev. 640 (1916).

[3] 114 Mass. 69, 19 A. 310 (1873).

[4] 10 Ch. App. 142.

[5] 29 Harv. L. Rev. at 658.

[6] 114 Mass. at 69.

[7] 114 Mass. at 69.

The *Dialite* court based its decision upon several English cases: *Huggonson's Case*;[8] *Gee v. Pritchard*;[9] *Seeley v. Fisher*;[10] *Fleming v. Newton*;[11] and *Mulkren v. Ward*.[12] Yet, none of these cases seems to support the decision.

To summarize, in *Huggonson's Case*, sanctions for contempt of court, rather than libel, were found to be a more appropriate avenue of punishment for the printing of articles attacking the parties and by way of inference, the witnesses, in a pending suit in chancery. An injunction was allowed in *Gee* because the plaintiff had a property interest (apparently copyright) in the personal letters of her late husband. An injunction was denied in *Seeley* because the advertisements were exaggerated state-

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[8] Huggonson's Case, 2 Atk. 469, 488, certain newspaper articles attacked the parties on one side of a pending suit in chancery, which, by way of inference, reflected badly upon their witnesses; the court stated that the matter could only be dealt with as contempt, and not libel. This led to the conclusion that the court could not punish publication as a libel, but rather, punishment could be exacted only for contempt.

[9] Gee v. Pritchard, 2 Swanst 402, 413, (1818) the defendant was the adopted son of the plaintiffs' deceased husband. Dissatisfied with the provisions of his late father's will, the defendant threatened to publish the letters which the plaintiff had written to the defendant (regarding family matters); an injunction was issued to prevent the publication of the letters. The court held that equity would not enjoin a libel since libel was a crime and equity had no jurisdiction to prevent crimes. However, since the plaintiff had a "sufficient property right in the original letters to authorize an injunction," the court allowed the injunction based upon a property right in the letters.

[10] Seeley v. Fisher, 11 Sim. 581, plaintiff owned the copyright to the last edition of the "Commentary on the Bible" written by a Dr. Scott and an assistant. Defendants were reprinting the last prior edition, written entirely by Dr. Scott, and advertised the book as "the whole unadulterated labors of the author, not as re-edited by a different hand and an inferior mind." An injunction was refused to enjoin the advertisement as there was no wrong.

[11] Fleming v. Newten, 1 H.L. Cas. 363, 371, the Court of Session in Scotland reversed an order enjoining the publication of a public record of protested and dishonored bills and notes; in dicta, the court stated that "the liberty of the press consists of the unrestricted right of publishing, subject to the publication of libels." Since the injury was to credit, and because the information was already public, the publication was allowed.

[12] Mulkren v. Ward, L.R. 13 Eq. 619, the defendant published a book attacking the plaintiff (trustees of a building society) and arguing that the plaintiff's companies could not be solvent. An injunction against the book was refused, since the opinion of the defendant was questionable, such that a jury would be needed to weigh the issues.

ments and not false. The *Fleming* court denied injunctive relief against the printing of public information regarding the unpaid credit of several individuals. In *Mulkren* an injunction was denied because statements regarding the alleged illegality of certain business practices was one of opinion, not fact.

Clearly, the trend in the English cases does not support the conclusion arrived at by the court in *Dialite;* in the one case dealing with a property interest, *Gee,* an injunction issued. In this sense, the trend was established that a court in equity would not order an injunction to prevent a libel or slander against the property of another.

Further confusion arises from *Dialite* wherein the court stated: "[t]he opinions of Vice-Chancellor Malins in *Springhead Spinning Co. v. Riley*[13]. . . [and]. . . *Dixon v. Holden*[14]. . . appears to us to be inconsistent with [the English cases] and with well settled principals, that it would be superfluous to consider whether, upon the facts before him, his decisions can be supported."[15]

In *Springhead,* an injunction prevented the intimidation of plaintiff's employees by either coercion or by publication. No truth as to the allegations in the publication was claimed; only the fact that the publication was designed to harm the property rights in the plaintiff's business was presented.

In *Dixon,* the defendants were preparing to publish a statement, known to be false, that the plaintiff had defrauded the creditors of a bankrupt firm in which the plaintiff was a partner. The defendants argued that no property right was at stake, and hence an injunction should not issue, but failed in that the court granted the injunction. The only possible injury was to the plaintiffs credit and business reputation. *Dixon* held that a court in equity had the jurisdiction to protect not only one's business, but also one's business reputation, because a business reputation is "property":

> Now the business of a merchant is about the most valuable kind of property one can well have. Here it is the source of his fortune and therefore to be injured in his business is to be injured in his property. But I go further and say if it had only injured his reputation, *it is within the jurisdiction of this Court to stop the publication of a libel of this description which goes to destroy his property or his reputation, which is his property. . . .*[16] [emphasis added]

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[13] 6 Eq. 551.

[14] 7 Eq. 488.

[15] 114 Mass. at 70.

[16] 7 Eq. at 491.

(It must be remembered that in *Dixon,* the defendants, who intended to harm the plaintiff, knew that the statements were false.)

The second English case denying jurisdiction to enjoin defamation, *Prudential Assurance Co., supra,* concerned an *opinion* by the defendant on a subject of considerable public interest: premium rates charged by insurance companies and a potential "conspiracy" in rate determination. The plaintiff alleged that the defendant's statements were untrue. Because an injunction prohibiting the publication was denied, *Prudential* is considered to overrule *Dixon.* Whereas *Prudential* dealt with the publication of an opinion, *Dixon* dealt with the publication of a known-to-be-false statement of fact. Therefore, the two cases seem to be easily distinguishable.

The trend begun in *Dialite* and *Prudential* is "no relief in equity against a clearly false and malicious libel which causes irreparable injury to property rights;"[17] in disregard of prior case law that *did* support equity in property disparagement cases. Furthermore, *Prudential* could have been distinguished from *Dixon.* Nonetheless, the case law after *Dialite* and *Prudential* follows this trend.

Marline Fire Arms and the Need for Proof of Special Damages

In both *Dialite* and *Prudential,* the Courts refused injunctive relief for disparaging statements regarding property without special damages proven. *Marlin Fire Arms Co. v. Shields*[18] recognized and followed this proposition. A case involving the publication of false opinions in the guise of "Letters to the Editor" regarding the plaintiff's guns, *Marline* is historically important. It discusses a plethora of common law requirements for an action in disparagement of property, e.g., publication of false statements in disparagement of the plaintiffs property, malice, and proof of special or actual damages as a consequence of the publication.[19]

Because proof of special damages is the most difficult aspect of establishing a case of product disparagement, it is important to appreciate the need for such proof. In terms of "special damages", *Marline* relies upon *Tobias v. Harlan.*[20] In *Tobias,* the defendant, a dealer in watches manufactured by a competitor of the plaintiff, disparaged the plaintiff's watches. Defendant's words did not "impeach the integrity, knowledge, skill, diligence or credit of the plaintiff. They only related to the qual-

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[17] 10 Harv. L. Rev. at 663.

[18] 171 N.Y. Rep. 384, 64 NE 163 (1902).

[19] 10 Harv. L. Rev. at 663.

[20] 4 Wend. 537 (1830).

ity of the article which he manufactured."[21] Judgment was for the defendant on the theory that without proof of special damages, an injury could not be asserted. The court argued that without special damages, liability for mere opinions regarding products would develop, and a new generation of lawsuits would arise:

> [A]n allegation that a manufacturer had made a particular article bad can not be a slander. A contrary doctrine would, in my apprehension, be exceedingly pernicious. It would render a man liable to be called into court to justify an *unfavorable opinion* he might express of any manufactured article which another had for sale. It would involve a strange contradiction to hold a man answerable for words imputing defects in an article of merchandise, and to exonerate him from responsibility when he charges his neighbor with a defect or want of moral virtue, or the neglect of mere duties or obligations. A charge of the moral deficiencies above referred to is declared not to be actionable.... It appears to me, that when the words are spoken, not of the trader or the manufacturer, but of the quality of the articles he makes or deals in, to render them actionable, per se, they must impute that the plaintiff is guilty of deceit or malpractice in the making or vending of them.... The principal on which this action must be sustained, if it be sustainable, would make a new class of words actionable; and when applied, as it would be, to the business communications of every description of citizens, its practical effects would, in my judgment, be alarming.[22] [emphasis added]

Tobias essentially separated the person and the thing created by the person: one's statement that an article is "dangerous" might be actionable in that it impugns the integrity of the person.[23] Stating that the article manufactured is "no good" might not be actionable. The requirement of special damages set in *Tobias* not only shifts the burden to the plaintiff to prove injury, but also negates any equitable relief when special damages are not apparent or too difficult to ascertain.

Using the *Tobias* criterion for special damages, the court in *Marline* denied any relief to the plaintiff despite the fact there was no adequate remedy at law, and as special damages could not be shown, there was no equitable relief. Review of the reasons *why* special damages were created leads one to conclude that a continuation of this rule is but blind adherence to the past. The *Marline* court followed the *Tobias* rule for

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[21] *Id.*, at 542.

[22] *Id.*, at 542.

[23] See, e.g., Larsen v. Brooklyn Daily Eagle, 165 App. Div. 4 (1914), 150 N.Y.S. 464, *aff'd*, 214 N.Y. 713, 108 NE 1098 (1915), in which statements written that implied that the ice cream sold by the appellants caused the death of a child were libelous per se, and hence were actionable.

special damages (apparently) because it was settled law. Relative to this, *Testing Systems, Inc. v. Magnaflux Corporation*[24] discussed the historical need for proof of special damages:

> The necessity of pleading special damages has been an integral part of the action of disparagement of property.... Until the 19th Century the requirement did not impose any untoward burden on the litigant. The early business community was devoid of the complexities that characterize the modern marketplace, and it was the rule, rather than the exception, that tradesmen knew their customers well. It was not too difficult, therefore, to determine just when and why ones customers began to favor a competitor.... As is often the case, *the rule respecting special damages continued in force after its raison d'etre had passed*.... One can appreciate the plight of the small metropolitan retailer whose patrons are, for the most part, unknown to him by name.[25] [emphasis added]

However, the need to prove such damages today seems devoid of common sense, especially because "[t]he inflexibility of most courts in demanding strict compliance with the rule has hampered the effectiveness of the action and contributed to its unpopularity."[26] Even though the court in *Testing Systems* recognized the continued use of an obsolete requirement, it rejected the injunction sought![27] After reflection upon the words of Justice Holmes, one might conclude that to require proof of special damages is no more logical than to argue in a modern, scientific world that the Earth is the center of the Universe.

In most product disparagement cases the plaintiff is caught between the "rock" of legal doctrine and the "hard place" of stare decisis: the plaintiff cannot pre-determine what, if any, damages will result from the defendant's disparaging statements. Common sense shows the defendant's action in *Marline* to be wrong and unfair. Disparagement of another's property, to the detriment of the person, should and could be prevented. Therefore, courts should realize that to deny equitable relief is, in most cases, to deny any relief at all.

A reading between the lines of *Tobias* would lead one to believe that the court was concerned with a *single individual* being held accountable for his *opinions* regarding a specific product. Quite clearly, in such a case, a need for special damages would be prudent in order to prevent the suppressions of comments from the disgruntled consumer. Yet in

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[24] 251 F.Supp. 286, 149 U.S.P.Q. 129 (E.D. Pa. 1966).

[25] *Id.*, at 290.

[26] *Id.*, at 290.

[27] *Id.*, at 291.

Marline, there was no "disgruntled consumer:" rather, the false statements regarding Marline's products came from a disgruntled magazine editor who attempted a campaign of extortion by using an opinion column in order to disparage Marline's product. The suppression of opinions, feared by the *Tobias* court, was obviously absent in *Marline.*

Perhaps most importantly, the "property" interest in the Marline guns was similar to the property interests discussed in *Gee, Springboard,* and *Dixon.* Prior case law could have supported an injunction, especially because the defendant in *Marline* had in mind *only* the disparagement of the plaintiffs property. The defendant's "opinions" were a mere vehicle to an attempted "destruction" of the quality of the plaintiff's property. Not only did the decision open the door for continued disparagement, but a precedent was set for all product disparagers.

It is easy to discuss this in hindsight. However, *Marline* stands for the proposition that without proof by the plaintiff of special damages, the defendant's malicious disparagement of merchandise will not provoke equitable relief. *Marline* points to the manufactured goods, and not the manufacturer, as to what was disparaged:

> [T]he complaint contains no allegation of any statement made against the character or conduct of the plaintiff. *It has not been libeled.* The words published in the defendant's magazine... criticize the guns manufactured by the plaintiff. They do not charge that the plaintiff was guilty of any deceit in vending, or want of skill in manufacturing.[28] [emphasis added]

Even though the defendant had written false, malicious "opinions" regarding the plaintiffs guns, the Court in *Marline* allowed (with total deference to *Tobias*) even "false" opinions to continue, thus creating a disparagement "loophole." Accordingly, a person can publish a false "opinion" disparaging the goods of another and rely upon *Marline* and the doctrine of free speech to surround himself with a judicial "fortress." If he does not impugn the manufacturer, and if it is difficult for the manufacturer to prove specific and actual damages, the disparager is legally safe. This is again the situation decried by Justice Holmes: a reliance upon prior decision without explanation. It is indeed "revolting".

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[28] 171 N.Y. Rep. at 390.

An Indication of Potential for Change

(A) *Black & Yates* and Systems Operations.

Some courts have seen through this "revolting" aspect of product disparagement cases, the most famous being *Black & Yates, Inc. v. Mahogany Ass'n.*[29] which stated:

> We are quite willing to repudiate the "waning doctrine that equity will not restrain the trade libel." We are further willing to do so directly without hiding behind the other equitable principles put forward in some of the cases... [these being breach of trust, coercion, boycott or "plan and scheme" and conspiracy].... In doing so we may well repeat the words of a leading writer: "What does it really matter whether old customers are induced not to carry out their obligations or new customers are persuaded by unfair means not to enter into contractual relations? One practice is unfair as the other, and in both cases the growth and success of the plaintiff's business are seriously affected."[30] [citations omitted]

The court in *Black & Yates* also attacked the allegation that free speech has some place of importance in product disparagement cases:

> The irrelevance of "free speech" and of "a libel is for a jury" are patent. Freedom of discussion of public issues does not demand lack of "previous restraint" for injury to private individuals. Disparagement of goods presents no confusing or complicated matter of personality requiring the sympathetic attention of one's peers.
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> * * *
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> [T]he traditional doctrine puts anyone's business at the mercy of any insolvent, malicious defamer who has sufficient imagination to lay out a skillful campaign of extortion. So long as denial of relief in such cases rests *on no stronger basis than authority,* our courts are sure to find a way out.[31] [emphasis added] (citations omitted).

The Court in *Black & Yates* defied tradition and succinctly delineated "disparagement" as an interest in property, and "defamation" as interest in personality. Hence, "[a] rule developed to deal with defamation should not have been automatically applied to disparagement."[32] Unfortunately, *Black & Yates* was not heralded as it might have been (i.e., the courts did not "find [their] way out").

Black & Yates pointed out that a court will not enjoin a libelous statement regarding one's manufactured goods because the rule against enjoining a personal libel was applied to product disparagement. However,

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[29] 129 F.2d 227 (3rd Cir.), *cert. denied,* 317 U.S. 672 (1942).

[30] *Id.,* at 231.

[31] *Id.,* at 230-231.

[32] *Id.,* at 236.

product disparagement always involves property and only very rarely does it directly involve the manufacturer. Therefore, the rule that prevents the use of injunctions in a case of product disparagement is not, and cannot, be sound.

In *Systems Operations, Inc. v. Scientific Games Development Corp.*[33] the court held that one who disparages the goods of another should be able to prove the basis for the statements. The benefits of such a rule are immediately recognizable:

> As a matter of policy in the disparagement of quality cases, it would appear eminently fair and reasonable to place the burden of proving the truth of the disparaging statement upon the speaker.... This Court can see no reason why one disparaging the quality of another's goods should be given prima facia protection in making such statements. To require the plaintiff to prove the falsity of a defendant-competitor's disparaging remarks would place an incredible burden upon him, especially in situations where the facts are likely to be within the knowledge of the defendant.... In this way the constitutional and competitive interests of all parties and the public will be adequately protected.[34]

Under such a system, the disparager must reflect upon disparaging comments. If the comments can be proven as true, then both the public as well as the competitor benefit. If the disparager cannot, the statements will be stopped and the marketplace will judge the quality of the goods of each manufacturer. However, this reasoning was rejected by the court of appeals.[35] Recognizing that the state law of New Jersey did not support this policy, the court of appeals held that the plaintiff has the burden of proof, based upon nothing more than prevailing case law. Once again, common sense fell behind the black-letter law.

The proof of special damages required of the plaintiff, and the need for proving the falsity of the disparagement, made perfect sense in the days of the small town merchant. Such a requirement is nonsensical in the business world today. A competitor could make disparaging statements detrimental to another and find sanctuary in the knowledge that the motivation for the disparagement is locked away in his mind. Thus, the potentially innocent manufacturer has (a) none of the "breathing-space" afforded by preliminary injunction to discover the basis of the remarks, and (b) no capability to determine the scope of the resulting financial harm until the harm is evident. This is quite inappropriate.

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[33] 414 F.Supp. 750, 193 U.S.P.Q. 222 (D.C. N.J. 1976).

[34] *Id.*, at 760.

[35] See Systems Operations Inc. v. Scientific Games Development Corporation, 555 F.2d 1131 (3rd Cir. 1971).

(B) *Bose Corporation* and the *New York Times* "Actual Malice" Standard for Non-Competitor Disparagement

The present rule alone would create frustration for the plaintiff whose goods are disparaged. However, as is usually the case, an unsound precedent promotes unsound decisions. The courts, clearly confused as to the continued use of unsound and antiquated case law,[36] are now more confused in treating two groups that disparage: competitors and non-competitors. There is growing acceptance in the courts of a "modified rule which sanctions injunctive relief against competitors while continuing to bar such relief against non-competitors."[37] Common sense, rather than a weak attempt to correct a misguided rule of law, should be the goal: if injunctive relief is afforded to the competitor, then the same should be to the non-competitor. One can easily see that the damage is the same, regardless of the source. The rationale behind such a rule is that a non-competitor is not motivated by any financial incentive, whereas the competitor will only disparage anothers goods in the hopes of increasing his/her sales. Support for this position is outlined in *Bose Corporation v. Consumer Union of United States*.[38]

The Supreme Court in *Bose*, relying upon *New York Times, Inc. v. Sullivan*[39] allowed a "public figure" analysis in cases of product disparagement and required a showing of "actual malice" to find the defendant liable for disparaging the plaintiff's product. But since the defendant in *Bose* was not a competitor, "actual malice" could never be proved because the non-competitor only provided opinions motivated by intellectual discourse and not by financial incentives. The damage to the product was readily shown; to require proof of "actual malice" along with special damages adds yet another burden upon the disparaged manufacturer.

If, however, one could use *New York Times v. Sullivan* to judge *all* product disparagers, rather than to separate competitors from non-competitors, a potential "re-shaping" of the law is possible. The Court in *New York Times* used a "reasonable basis" test to examine a statement directed at a public official. In other words, the individual making the statement must have at least a reasonable basis for the opinion:

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[36] See note 25, *supra*.

[37] Magazine, "Corporate Defamation and Product Disparagement: Narrowing the Analogy to Personal Defamation", 75 Columbia Law Review 963, 993 (1975).

[38] 466 U.S. 485, *reh'g. denied*, 467 U.S. 1267 (1984).

[39] 376 U.S. 254 (1964).

> The statement does not indicate malice at the time of the publication even if the advertisement was not "substantially correct". . . that opinion was at least a reasonable one and there was no evidence to impeach the witness' good faith in holding it.[40]

"Re-shaping" puts any and all product commentators on notice that the statement to be made must have a reasonable basis to support the allegation. The burden shifts to the speaker who must prove the reasonableness of the comment. The test is minimal (only a reasonable basis, as opposed to concrete proof, is required). The potential for self-censorship is minimal, *if* the remedy is consistent with an even allocation of burdens. This shift, consistent with *New York Times,* would be a recognition of the logic used by the court in *Testing Systems,* in that the disparager must be able to support the product allegations that were made. Furthermore, the situation as it is now imposes unequal dual burdens of proof: the disparaged manufacturer must prove specific damages, whereas the manufacturer must prove actual malice when a non-competitor disparages the same product. As evident from prior case law, both are quite difficult to establish.

(C) ***The Lanham Act***

The present system creates divergent areas of false representations, that is, one's own product and of the products of a competitor. Under 15 U.S.C. § 1125(a) [§ 43(a) of the Lanham Act], an individual falsely representing his own product can be enjoined from doing so by anyone who "is likely to be damaged by the use of any such false. . . representation." In reliance upon the Act, some cases clearly support equitable relief as a viable remedy for any individual likely to be damaged by false representations of another manufacturer's product. However, the courts have not allowed the use of §43(a) by an individual whose products have been falsely represented by a competitor[41] unless the disparager is simultaneously making false representations about his own goods. Such was the scenario presented in *Vidal Sassoon, Inc. v. Bristol-Myers Company.*[42]

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[40] *Id.,* at 286.

[41] See, e.g., Fur Information & Fashion Council v. E.F. Timme & Son, Inc., 501 F.2d 1048, 1051 (2nd Cir.), *cert. denied,* 419 U.S. 1022 where the court held:

> From a reading of the statute [15 U.S.C. § 1125(a)] itself, it seems quite obvious that its purpose was to prevent false descriptions of [one's own] goods being offered. Unfair competition and commercial disparagement. . . are not embraced within the statute.

[42] 661 F.2d 272, 213 U.S.P.Q. 24 (2nd Cir. 1981).

Bristol-Myers had waged an aggressive advertising campaign on behalf of its new shampoo product; the focus was a comparison test of Bristol-Myers' shampoo with that of several competitors, including Vidal Sassoon. The advertising indicated that women preferred Bristol-Myers shampoo over the other brands. The comparison had two flaws: first, two-thirds of the "women" had ages ranging from 13 to 18. Second, the test employed "blind monadic testing" parameters, wherein each woman tested *one* product and rated that product using an adjective-based scale of preference.

As was revealed by a survey, viewers believed that each woman had tried *two or more* brands. Consequently, the Bristol-Myers advertisements were not only false representations of their own products, but also were disparaging to the competition. Hence, a hybrid §43(a)/product disparagement action was initiated by Vidal Sassoon. Equitable remedies were available under § 43(a). However, the court recognized the statute to afford equitable relief only for the representations made regarding the Bristol-Myer's shampoo and not for the product disparagement:

> While we recognize that § 43(a) encompasses only misrepresentations with reference to the "inherent quality or characteristic" of [one's own] product... we are nevertheless convinced that... Sassoon would probably succeed in showing that the intent and total effect of the advertisements were to lead consumers into believing that [Bristol-Myer's product] was competitively superior...[43] [citations omitted].

The court found injunctive relief to be the proper remedy.

Let us assume, for the moment, that Bristol-Myers omitted its product in its advertising campaign. For example, Bristol-Myers might have stated: "Independent laboratory tests conclude that products X, Y and Z were rated by over 900 women as 'not desirable' for their hair care needs." Such an omission simply removes the possibility of any § 43(a) action against Bristol-Myers; a court would examine the statement only for "pure" product disparagement.

This example illustrates how the case might be handled using a *New York Times* "reasonable basis" test. Under the present system, plaintiff, Vidal Sassoon, must first prove that the statement made by its com-

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[43] One could ponder at the Due Process considerations as they relate to the differences between Bristol-Myers and E.F. Timme & Son. Both causes of action are sounded in product disparagement and arguably § 43(a) was only used in Bristol-Myers as a vehicle for the disparagement cause of action. However, the effect of the Bristol-Myers decision is to force advertisers to use subtlety such that their product is not specifically mentioned in connection with the disparagement of the competition's product. The effect, therefore, is to create different sets of relief for similarly situated individuals whose products are being maligned.

petitor was false. Obviously, this would be very difficult because Bristol-Myers is not obligated to provide the basis for its claims. Assuming that after several weeks Vidal Sassoon is able to determine that the claims centered on monadic testing, enough doubt as to the dubious claims made by Bristol-Myers could be raised to argue that Vidal Sassoon's product is being unfairly disparaged. The next step would be for Vidal Sassoon to prove that their shampoo sales suffered as a *direct* result of the Bristol-Myers advertisement. The only way for a company such as Vidal Sassoon to prove such damages comes after the damage is done; their product might effectively be "removed" from the market by the time special damages are proven. Such proof might produce a financial settlement after a lengthy lawsuit. Nevertheless, both parties could spend countless dollars in such a lawsuit.

In contrast, the same facts, under a "reasonable basis" test, would produce a more equitable outcome *for both parties.* Under such a test, a manufacturer could indicate to the disparager that the statements are disparaging. *Vidal Sassoon* would essentially "freeze" time. At the point of notice, Bristol Myers would have three options: (1) stop the advertisements altogether; (2) continue the advertisements; (3) allow Vidal Sassoon to see the test results as proof of a "reasonable basis" for making the claims.[44] The "reasonable basis" of the results is clearly a question of fact. However, if Vidal Sassoon were able to show Bristol-Myers that such testing was insufficient for broad comparisons, then more advertisements by Bristol-Myers would clearly be willful and wanton. And if, for example, Bristol-Myers offered no basis for the claims, the advertisements would clearly be (under a "reasonable basis" test) presumptively false.

Both parties benefit under this proposal: if Bristol-Myers can show that the basis was, in fact, reasonable, then irrespective of the falsity of the statement, Bristol-Myers would not be held liable for damages; if the basis for the advertisements is unreasonable, and if notice of the unreasonable basis is not provided, the disparaged competitor would re-

[44] In the Bristol-Myers case, the facts indicate that there was a "reasonable basis" for the claims. The president of the independent marketing firm that conducted the tests indicated that "blind monadic testing had been used in connection with comparative advertising in the past." 661 F.2d at 275.

cover some form of "minimum statutory damages." However, if there is notice and the basis is unreasonable, then the disparaged competitor would recover more than the minimum.

Under the proposal, the burden is distributed to the party best suited to provide the necessary data/results/calculations for proof. The burden of proving disparagement shifts to the disparager to provide the "reasonable basis" whereas the burden of proving the basis "unreasonable" must be satisfied by the disparaged manufacturer. Another attribute of the "reasonable basis" test is that it is equally applicable to a non-competitor as well. For example, Consumer Union would have had to provide Bose with the data to support the basis for their comments, while Bose would have had to prove that the basis is not reasonable.

The principal benefit is that a court could grant a preliminary injunction if the disparaged party showed the basis used by the disparager to be unreasonable. Therefore, once the injunction issues, the disparaging comments would cease and the disparaged party would have ample time to assess potential damages.

Support for this proposal is found in *Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council Inc.*,[45] which discusses prescription drug prices and competing philosophical, ethical and constitutional issues (first amendment right to free speech versus the restrictions placed upon "unprotected" commercial speech). Using a quasi-economic, constitutionally-based argument, the Supreme Court cited the overriding need for the free flow of information enhancing the public's knowledge of commercial resources:

> So long as we preserve a predominately free enterprise economy, the allocation of our resources in large measure will be made through numerous private economic decisions. It is a matter of public interest that those decisions, in the aggregate, be intelligent and well informed. To this end, the free flow of information is indispensable. . . . And if it is indispensable to the proper allocation of resources in a free enterprise system, it is also indispensable to the formation of intelligent opinions as to how that system ought to be regulated or altered.[46]

In the context of product disparagement, it is debatable that a free flow necessitates a flow of all information on all products, without discrimination between truth, puffing, or false claims, if one assumes the public can filter the information aggregate to separate the wheat from the chaff.

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[45] 425 U.S. 748 (1976).

[46] *Id.*, at 765.

However, a public continually bombarded with "theatrical" advertisements may not want — nor be able — to examine disparaging statements. If the consumer wishes to make an intelligent decision regarding a statement, and if a competitor has reasonable basis for proving that another product is not as good as his product, then the public should see this basis. If, however, the competitor's claims lack any reasonable basis, then the competitor hampers the free flow of information so necessary to a rational, well-informed analysis of a disparaged product. Historically, decisions in the area of product disparagement tend to contradict the premise of *Virginia Citizens*. Rather than acquiesce to the past in an area where modern concerns clearly outweigh prior mistakes, the legal system should promote a doctrine that recognizes *stare decisis*, but also recognizes the need for worthwhile change.

A PROPOSAL TO UTILIZE THE "REASONABLE BASIS" STANDARD IN AN EFFORT TO ALLOCATE THE BURDENS OF PROOF IN PRODUCT DISPARAGEMENT CASES

Modern product disparagement case law still relies upon a doctrine formulated when towns were small, advertising was by word of mouth, and merchants knew most customers on a first-name basis. Today, multi-national corporations direct millions of advertising dollars to consumers situated in diverse states as well as diverse nations.

Yet, it is not the consumer who is in a position to determine the extent of damage caused by product disparagement. Courts have not aided the disparaged manufacture;[47] disparaging competitors are given "prima facia" protection when making disparaging remarks;[48] the need for proof of "special damages" places an extreme burden of proof upon the disparaged manufacturer; the product disparagement suit is thereby avoided by those whose products are disparaged.[49] As a result, product disparagement doctrine must change. *Stare decisis* can be maintained with a more equitable allocation of burdens of proof. A new new allocation of burdens of proof that examines the statement first, then the person making the statement, is clearly a satisfactory and equitable system.

The new standard has several prerequisites. The disparaged manufacturer *must* notify the apparent disparager that the advertisement/comment is disparaging. The disparager must provide the basis

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[47] See, e.g., note 18, *supra*.

[48] See notes 35 and 36, *supra*.

[49] See note 25, *supra*.

for the claims to the disparaged manufacturer; if the disparager were reluctant to comply, a court would compel the disclosure. The disparaged manufacturer must decide whether or not the basis is unreasonable, and hence if a hearing is necessary, within thirty days. At the end of the thirty days, the disparaged manufacturer must notify the disparager of their acceptance or non-acceptance of the basis for the comments. The disparager would have three alternatives if the disparaged manufacturer alleges that the basis is inadequate and hence unreasonable: (1) discontinue the advertisement; (2) significantly alter the advertisements such that the new advertisements could be supported by the basis; (3) continue with the advertisements.

In both (1) and (2), as well as cases in which the basis is considered reasonable to the disparaged manufacturer, the disparager would not be penalized. However, if the basis is considered unreasonable by the disparaged manufacturer and the disparager continues the advertisements, the table below would be utilized:

	Competitor	Non-Competitor
Reasonable Basis:	**A**	**B**
Unreasonable Basis:	**C**	**D**

A — Advertisements can continue; Plaintiff must bear all costs and fees.

B — Advertisements/Comments can continue; Plaintiff must bear all costs and fees.

C — Advertisements must discontinue; $500 fine per publication or advertisement; Defendant must provide a corrective disclaimer; Defendant must bear all costs and fees.

D — Advertisements/Comments must discontinue; Defendant must provide a corrective disclaimer; costs borne equally by the parties.

The table is important for determining the different penalties that should follow, based upon, for example, the differences between competitor and non-competitor disparagement.

Remedies A and B assure the disparager that, if the basis is reasonable, then the plaintiff will bear the defendant's costs including reasonable attorney fees; this prevents indiscriminant suits (i.e., an opponent will consider the financial consequences of bringing a losing suit.)

Remedies C and D distinguish the competitor from the non-competitor who provide the public with information unsupported by the data from the disparager. Advertisements/comments that have no reasonable basis must be discontinued. When the disparager, notified of a rationale dis-

puting the data, continues to print the claims, the disparager should be penalized if the basis is found unreasonable after a hearing on the merits. Furthermore, if the basis is determined unreasonable, then it makes sense to have the disparager correct the false impression via corrective advertising/comments. In this way, if the basis is determined to be unreasonable, then the public has in effect suffered, and therefore the corrective advertising can rectify the mis-information.

The difference between a competitor and a non-competitor should be recognized in an equitable relief proposal. Under the proposal, the competitor must pay the disparaged manufacturer $500.00 per advertisement whereas the non-competitor would not be penalized in this manner. Again, given the motivational differences between the two groups, the court must recognize the financial incentives behind the disparagement vis-a-vis when penalties are considered. As discussed above, the penalty could be increased depending upon all factors considered.

The proposal allows for consistency with the past, yet is sensitive to the realities of modern business practices. By adequately shifting the burdens of proof and by recognizing the differences between competitors and non-competitors, the standard utilizes a reasonable basis examination of the disparaging advertisements/comments benefit the public in that it receives information for realistic decision-making. The standard benefits the potential disparager who must have support for the advertisement/comments. Finally, it benefits the potentially disparaged manufacturer in that the shortcomings of prior decisions will not allow the manufacturer's product to be unfairly maligned. The proposal replaces blind acceptance of inadequate decisions, with rationality.