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Suggestions as to Methods of Shortening the Time Required to Finally Adjudicate Applications for Patents.

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Some Suggestions as to Methods of Shortening the Time Required to Finally Adjudicate Applications for Patents

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The subject of patent law has been described as covering a very limited portion of the field of general law. While not extensive, it is, gentlemen, as deep as a well.

It is believed to be generally recognized that there is no other branch of the law that requires a greater mentality, a wider knowledge, or greater skill and training.

The Examiner, who with the all too little time for each case, is able to apply this law with reasonable accuracy, to the multitude of different inventions, embraced in applications possessing a multitude of different imperfections and insufficiencies, and adjudicate the enormous number of claims required to mark the limits of the rights involved, must indeed possess a degree of skill, judgment and learning that is, to say the least, unusual. He must be at once judge, jury and counsel. He must determine the law, weigh the evidence, and combat and expose the fallacies in the arguments presented by the too zealous applicant. All this he must do with a maximum of speed, if the work before him is not to hopelessly accumulate.

It is the purpose of this paper to make some suggestions looking to the shortening of the time required to finally adjudicate the application. That every effort to this end is necessary is abundantly evidenced by the fact that steadily the number of applications filed each year has increased, and as steadily the time required to adjudicate each case has also increased, until now, the corps staggers under a load it is well nigh impossible to carry.

It is of little utility, perhaps, to discuss the reasons for this increase. It will be sufficient to merely note, in passing, that they are found in the fact that we are the most inventive people in the world; that our industrial and commercial supremacy is in a considerable measure due to this fact, and the steady increase in our population brings with it the natural increase in the number of applications filed each year. In 1840, there were 765 applications filed; in 1860, over 7,000; in 1880, 23,000; in 1900, 41,000; in 1913, 70,000. The examiners will, in the near future, be facing the stupendous task of examining a hundred thousand new cases a year.

Experience has shown that there is no such thing as an exhausted art.

Even where there are lulls in the advance of some of the arts, these are more than offset by the sudden activity in others, brought about by the invention of some radically new thing.

The invention of the wireless telegraph; of the successful flying machine; of the automobile, have resulted in a flood of applications for inventions in the nature of improvements and refinements, all having their bearing upon the creation of the eventually practical, commercial form of apparatus.

These pioneer inventions also bring about an increased activity in a large number of related arts.

A wireless telegraph station must have its source of high frequency current, its structural towers of great height, its special conductors of high insulation. In fact, these new conditions have brought about an increased activity in almost every branch of the electrical art.

A flying machine and an automobile must each have a gas engine, with its electric igniting means, its gas mixing apparatus, and its multitude of related devices pertaining to many mechanical and metallurgy arts. All these take on special designs and refinements incident to their new use, and bring their multitude of applications to the various divisions of the office having in charge the cases relating to these various arts.

The art that must be searched is increasing by leaps and bounds, and reclassification, imperative as it is,

and helpful as it is, can not solve this part of the problem, and is only a partial, though welcome, aid.

The complexity of the subject-matter of the applications is ever increasing. The fact that more and more of the complicated manual operations and processes are being accomplished by machinery, and that existing machinery is being more and more refined, made automatic, and made to do things requiring almost a human intelligence, with a minimum of supervision, brings about this result.

There has also grown up a class of people who are desirous of a patent of some sort, of any sort, who keep an application which is fairly anticipated before the Examiner as long as possible, hoping by some argument or shift, or amendment, to find some slight point on which to hang an allowable claim or to weary or argue the Examiner into allowing some sort of a claim, so that counsel may obtain his fee, or satisfy an uninformed client or a client who is indifferent to the validity of his patent but wishes to mark his device patented merely for the intimidating effect upon would-be rivals.

It is plain enough, therefore, that in the near future, the work of the examining corps will not grow less. The situation, as we are all aware, has resulted in the cases awaiting action reaching the somewhat startling number of over 25,000

There are several very cogent reasons why applications should be speedily brought to a final adjudication.

Applications long pending are a source of scandal and abuse. Often they do not embody the inventions in commercial form, they are kept pending in the office while others, ignorant of them, and therefore obtaining no aid from them, invent and produce successful devices, create a commercial value and status at great expense and risk, only to find that the owner of the long pending application has placed therein a claim dominating all that the later inventors have done, has issued the patent and by legal process lays tribute upon the labors and the rewards of the later innocent inventors. Such a proceeding is so repugnant to justice and equity that this office is warranted in doing all it can to prevent such applications from being kept pending during long periods.

Further, by removing the cause, legislation honestly intended to reach this class of cases, but also doing great harm to inventors whose applications are necessarily delayed in the office, will be rendered needless.

The long pendency of a large number of applications before the office, by consuming its time in reconsidering them over and over, renders the period before a new-application is reached for the first examination so long that the inventor frequently suffers great loss. The art may pass beyond his invention. He may lose his opportunity to sell. He dare not incur the expense incident to manufacture because of lack of protection. Having no indication of the attitude of the office his commercial interests, so far as that invention is concerned, are entirely halted.

The foregoing considerations are sufficient to show that the office has reached a condition that may be regarded as almost critical, and one that fully justifies it in adopting any means, not inconsistent with law and which will not injure the rights of inventors, that will enable the corps to reduce the number of times applications must be reconsidered, the period they may be kept pending, and the number awaiting action.

How is this to be done?

I shall not consider here possible future legislation, but will consider only what can be done with the means at hand.

The standard of work must be maintained. If the examination and adjudication of applications are to be worth while, are to possess any real value justifying the enormous cost involved, the work can not be slighted. Enough patents, more than enough, in spite of the best we can do, are declared invalid in whole or in part.

It is believed there is room for improvement in a conservation of energy.

I am reminded of a youth whom I knew in my younger days, who was wont to contest in foot races. When he was in full action, he had such a habit of waving his arms and moving his body up and down, that he had too little energy or time left for making progress forward. He always came in last. It has seemed possible the office sometimes progressed a little like this youth;

that it takes too many unnecessary actions, and the following suggestions are made, with a good deal of diffidence, in the hope that some economy of time and effort may be realized.

In the first examination of the application, if the action is to go to the merits, let it be a complete one.

In matters of form all objections should, so far as possible, be embodied in the first office letter, and be kept before the applicant in subsequent letters, if necessary, by simple reference to the first letter. This generally enables them to be all out of the way by the time the matters of merit are determined. I recall a letter received in a division in which I was an assistant many years ago, which read something like this: "The informalities and objections, which seem to increase in number with each reexamination of this case, have, we hope, all been cured."

Just a word here about formal objections. It is a well recognized fact that a great many are made that are subsequently waived. Bearing in mind the specification and drawing are addressed to those ordinarily skilled in the art, and they should be clear and understandable, yet as few formal objections should be made as is consistent with this ultimate end. Merely because the Examiner would state a matter differently, or could even state it better, were he writing the description, is no reason for requiring revision or change. If the matter is not incorrect, is not misleading, and the meaning of the inventor is plain, objection should, ordinarily, not be made. The Examiner should be sure his formal objections are really necessary. This saves time, argument and friction.

Before making a search for anticipatory art the application and the invention should be fully understood. It pays to take time to fully and completely comprehend the disclosure every time the case is acted upon. Then the first search should be as nearly complete as it is possible to make it. Not only the broadest and the narrowest claims should be held in mind in searching, but the invention, the thing itself, and its functions should be held in view. Where the invention is simple and fully comprehended a second search is rarely neces-

sary. In the more complex and extensive cases, however, second or even third searches are often necessary, it is true, but even here the gain of a complete search is proportionally great, and second searches will be proportionally fewer.

In regard to the search:

It is said all men are equal before the law. Some one has added, "this is true, however, only in theory." The same is true of claims.

A narrow claim limited to the precise embodiment of the invention disclosed is much less likely to be anticipated by anything found outside the class where the case belongs. A search on such a claim, therefore, should seldom be prosecuted beyond rather restricted limits.

Further, a narrow structural claim is seldom sued upon. An alleged infringer almost always adopts a modification and escapes the terms of such a claim. Also courts are very apt to sustain a specific claim where an infringer uses the very same thing on which it is based.

For these reasons, therefore, the narrow structural claim is not so important, is of less value and is much less frequently heard of after being once granted.

It is the broad claim that is important. It is this claim that dominates an art, that spreads over the territory that others may seek to occupy. It is almost always this type of claim that is brought before a court, and by which the plaintiff seeks to restrain an alleged infringer who uses something different.

This type of claim is valuable, if it is good, and is harmful if it is invalid. The inventor should have it, if he is entitled to it, and it should be denied him if it is not rightly his. Such a claim should be more carefully weighed. The chance of anticipating such a claim outside the class where the case belongs is proportionally great. Before searching in any place, however, the Examiner should first weigh the question as to whether, if he found something there, it would be in an analogous art and would be a proper reference.

Where an incomplete search is made, the Examiner takes very nearly as much time to make it and fully as much to adjudicate the claims on the art he finds as if he made a complete search. The attorney, in response,

amends his case to define from the art found. The Examiner reviews the case, possibly months later and after he has forgotten both the case and how faithfully he searched it. He will usually research the ground previously covered as well as the additional ground he originally should have searched. Here is a great loss of time because he covers the same territory twice. The whole status of the case may now be changed. The first action taken in the case as well as the response of the attorney are rendered almost useless, possibly quite so. The application is now just where it should and would have been had a complete search been made at first. The practice of not making a full and complete search in the first instance has resulted in some attorneys making a practice of not attempting to really advance their cases until after the second or even third action by the Office. It is easy to see that time and energy are lost by such proceedings.

The temptation is great, where an Examiner is driven at top speed to get off his cases so as to make the necessary weekly gain, to make an incomplete search, hoping that when the case comes up again he will have more time. But he merely puts off the evil day, and in the end does more work and gives more time in reaching a final adjudication of a given case than he otherwise would. When this case is multiplied by a hundred or even a thousand, the Examiner is, like the youth in the foot race, wasting a great deal of energy and time. When the search has been made and the Examiner comes to apply his references and adjudicate the claims, some of them may be squarely met by some references. Little time need be wasted here. Some claims, however, may require a combination of references. Here it is almost always best to explain, in as few words as possible, just how the combination is made. Even where the invention is simple, this is often advisable. It puts the matter specifically and squarely before the applicant and he can and must either point out why the combination is not proper or amend the claims. Where a reference lacks an element recited in a claim or must be modified in any way, even if ever so slightly, it is well to make an explanation, in a few specific words,

just why the element of the claim which is not in the reference is regarded as insufficient, or just what the modification of the reference consists of. Where the subject-matter is more complicated, these explanations are correspondingly more advantageous. Where an attorney is known to be well skilled in the art, less explanation is necessary. Where an inventor is prosecuting his own case but exhibits sufficient knowledge of patent law to warrant the Examiner in the belief that suggestions will enable the inventor to conclude his case without the aid of an attorney, the explanations should be correspondingly extended and made as specific as possible.

This practice places before the inventor or his counsel all formal objections, the complete art, and the Examiner's interpretation of the relation of such art to the application. It is evident the termination of the prosecution of the case before the Examiner need not be greatly prolonged. In the reasonably simple cases, where the entire scope of the invention can be readily seen and comprehended, the third action by the Examiner with the same references before him should ordinarily be sufficient to conclude the case. There are some cases, where special reasons exist, in which further consideration will be necessary. The Examiner should exercise judgment in each case and not make any fixed rule. With the increase in the complexity and extent of the subject-matter of other cases, a reasonable increase in the number of actions is inevitable. Even in these cases, however, the early citation of the complete art, and the notation of all formal objections, will go far to reduce the number of reconsiderations and reexaminations, while in no manner preventing the applicant obtaining full protection for all he has invented.

Whenever final rejection is about to be taken, and whenever the condition of the case indicates such a course would be helpful, the Examiner should suggest in brief specific terms any amendment which he thinks would advance the case or render the claims allowable.

There is a class of applications that I can not approach without realizing I am standing on holy ground

These are the *old* pending cases. Some have been pending five, ten, fifteen, and even twenty-five and more years. I know of no one, or half a dozen, things that will bring about so great an improvement in the condition of work before this Office as the conclusion of the pendency of these cases. Over and over again have they been examined. Unusually they have been amended once a year, some are so old that they fall under the old law of requiring amendment only once every two years. For a variety of reasons, some good and some bad, these cases have been kept in the Office, growing older, their records larger and more cumbersome, and adding very greatly to the labors of the examining corps. The annual amendments made to them have not been calculated or intended to really advance them toward a conclusion. The Examiners, too, have in the past despaired of making much advancement, and their annual actions have sometimes been less complete than they might have been. Until a comparatively recent time the Examiners have felt helpless to solve this problem.

Section 4904, R. S., states:

“Whenever, on examination, any claim for a patent is rejected, the Commissioner shall notify the applicant thereof, giving him briefly the reasons for such rejections, together with such information and references as may be useful in judging of the propriety of renewing his application or of altering his specification; and if, after receiving such notice, the applicant persists in his claim for a patent, with or without altering his specifications, the Commissioner shall order a reexamination of the case.”

Rule 68 is based on this statute and provides that an applicant “may amend as often as the Examiner presents new references or reasons for rejection.”

Section 4909, R. S., states:

“Every applicant for a patent or for the reissue of a patent, any of the claims of which have been twice rejected . . . may appeal from the decision of the Primary Examiner.”

Rule 134, which is based on this statute, specifies:

“There must have been two rejections of the claims as originally filed, or, if amended in matter of substance, of the amended claims, and all the claims must have been passed upon, . . . before the case can be appealed to the Examiners-in-Chief.”

These two sections of the statutes and these two rules have constituted the basis for a practice that existed from the adoption of the law, to almost the present time, and which was to the effect that an Examiner could never close the prosecution of a case before him so long as an applicant presented at each reconsideration at least one claim that was different in scope from any previously considered. When it is recalled that an application may have anywhere from half a dozen to several hundred claims, it is at once apparent any skilled attorney could, under such practice, keep an application pending so long as he desired.

This has been the cord that tied the hands of the Examiners and has rendered possible this great accumulation of old cases. By the decision in *Ex parte Miller* (139 O. G., 730), the cord was severed and the examining corps was relieved from this helpless condition which had become well-nigh intolerable. That decision is based upon the view, which is clear enough, that the statute does not contemplate nor require the repeated reconsideration of an application, dependent only upon the will of the applicant or the skill of his counsel in varying the language used to define the invention.

That decision held:

“Where the Examiner has held that certain claims are unpatentable and has fully advised the applicant of his reason for such holding and the latter, after reasonable prosecution of the case, has failed to so amend as to necessitate the citation of new references and has been unable by argument to convince the Examiner that he was in error, an issue is reached, and the Examiner is justified in refusing to accept further amendment and in finally rejecting the claims then of record in the case.”

This ruling, which has been subsequently fully upheld in *Ex parte* Perry (140 O. G., 1001), a second *Ex parte* Miller (150 O. G., 827), and *Ex parte* Lang (153 O. G., 1081), constituted a very marked departure from the old practice, in that it transferred from the applicant to the Examiner, the power to bring the prosecution of an application before the Examiner to a close. This at once made it possible for the corps to put a check upon what was becoming, in some instances, a grave abuse of the latitude of the Office procedure.

In explaining this holding of *Ex parte* Miller, Perry, etc., Mr. Billings pointed out that while it was true Rule 68 provided that an applicant had a right to amend as often as the Examiner presented new references or reasons, this rule also made it incumbent upon the applicant in amending to "clearly point out all the novelty which he thinks the case presents in view of the art disclosed." It is a natural deduction that if an applicant really does this, when he amends, a condition will ordinarily be reached in one or two actions where the Examiner has no new references or reasons to present.

Still the Examiners are not out of the wilderness. These old cases are often complex and extensive in subject-matter. It is not difficult, and the more complicated they are the easier it is, in amending them, to drive the Examiners to "new references or new reasons." This precludes the application of the Miller doctrine, in such instances, and brings them under Rule 68, giving applicants the right to further amend and argue.

Many inventors and attorneys, since the real condition of the Office and the possibility of stringent legislation being enacted have been made known to them by the Commissioner, have recognized the necessity, in the interests of all, for prompt action looking to a bringing to a conclusion these old cases, and have presented carefully prepared amendments which have enabled the Office to considerably reduce the number of such cases. In passing it is worthy of remark that it is surprising and also gratifying to note the extent to which it is possible to advance one of these old cases,

by a carefully prepared amendment, without sacrificing any of the inventor's rights.

There are, however, quite a number of these old cases where financial and other reasons impel the applicant to seek a further delay. Sometimes large rival concerns have many applications pending relating to a general subject or art, and are involved in many interferences which delay their cases in the office. Their interests are financially very great. Millions have been and are being expended in the production and perfection of these inventions. The securing of patents which will protect the owners in the use of such inventions is vital. To take out some of their patents, while so much is being litigated, and while rival concerns still have pending cases relating to analogous subject-matter, would be productive of enormous loss. These considerations must be given due weight.

Some cases, in which a plea for further delay is made, it would appear that counsel merely hopes, by repeating and impressing his arguments in various forms, to finally win over the Examiner.

Whether rightly or not a good many attorneys do not wish to be denied the privilege of impressing their arguments on the Examiner over and over again. This should not be necessary. If the applicant and the Examiner fully understand the case and the art, there is no necessity for this repeated review.

Some few of these applicants whose cases have been long pending are undoubtedly actuated by motives similar to those which actuate the citizen who does not want to enlist. They hope that, by some hook or crook, to keep their cases going a year or two longer and by that time, they are trusting, the war may be over, and they will finally escape the firing line.

So grave has become this evil of long pending cases, so great is the inertia of this load, so clearly is a remedy necessary to the preservation of our patent system and the interests of inventors and the public alike, that the Commissioner has seriously set about the work of bringing these cases to a conclusion. Results are plainly apparent, but the end has not been reached. Eager to afford these tardy prosecutors an additional oppor-

tunity to protect their inventions as he is, yet he has firmly impressed upon these applicants that he will not permit any needless delay. To that end he has sought to limit amendments to those that will not longer delay the case. He has taken over the personal consideration of all amendments to applications pending five years or over.

“If an amendment is filed in such a case which puts it in condition for allowance or final rejection, it will be accepted, but if the amendment does neither of these two things, as, for example, when an applicant undertakes to put in new claims the amendment will be considered without being entered and the applicant notified by the Commissioner of the character of a supplemental amendment which will put the case in condition for allowance or final rejection. If the applicant fails to file such supplemental amendment, the amendment which has already been filed will be refused admission and the case when the year is up will be held abandoned.” (Commissioner’s address to the Patent Bar Association, Chicago, Ill., Nov. 19, 1914, *Sci. Am.* Dec. 12, 1914, p. 491.)

It will be readily apparent that this plan is going to bring the prosecution of this class of cases to a close, yet there is given each applicant, after all the opportunities he has already had, a still further opportunity to draw his claims to cover what he believes he has invented, and if he can not agree with the Examiner to obtain the judgment of the higher tribunals. Even where an applicant seeks to expand his case anew, at this late date, by claiming something he has not claimed before, thereby necessitating “new references or reasons of rejection” the office goes so far as to examine this new amendment and indicate to him what part, if any, is allowable, and gives him an opportunity to incorporate this part in his patent.

It would seem that this plan is as liberal as is possible, consistent with the end had in view, and that

no one can justly claim his rights have not been safeguarded.

Returning to the consideration of applications generally, there is thought to be some loss of time due to what may be called debatable rejections. There is no need to discuss here practices that are settled, grounds of rejection that are fixed, but there are several grounds of rejection that are very frequently used and possibly a little more uniformity throughout the corps would be an economy of time.

I have read office letters rejecting claims on the ground they recite aggregations, where the claims would seem to be for true combinations, which were merely old combinations. Perhaps the ultimate end, the amendment of the claim, is finally reached, but often such rejection precipitates argument and needless waste of time.

While the United States Supreme Court in the decisions of *Hailes vs. VanWormer* (20 Wall., 368) *Florsheim vs. Schelling* (53 O. G., 1737); *Adams vs. Bellaire Stamping Co.* (57 O. G., 1280); *Richards vs. Chase Elevator Co.* (71 O. G., 1456); *Reckendorfer vs. Faber* (92 U. S., 347), and the U. S. C. C. of Appeals, Seventh Circuit, in the case of *Deere and Co. vs. Rock Island Plow Co.* (82 O. G., 1561), discuss very fully this question of aggregation versus combination, the following from a decision of the Examiners-in-Chief, made in a recent case, is so pertinent that I take the liberty of quoting it.

“In the first place, it should be observed that the problem of whether a given claim sets out a patentable combination or an aggregation is not to be solved by the citation of references. A true combination of elements, working together under a cooperative law, and producing a given result, remains a true combination for all time, irrespective of the antiquity of its original creation, . . . the ground of rejection which is proper is not that the combination is illegitimate, but that it is old.”

The question settles itself by determining whether the elements named in the claim *cooperate, work to-*

gether, though not necessarily simultaneously, but so that by virtue of what they *together* accomplish, a different result is secured from what would be secured if the elements were used separately. As was said by the Supreme Court in the *Reekendorfer vs. Faber* case, *supra*: "There must be a new result produced by their union; if it is not so it is only an aggregation of separate elements." This case was based on a lead pencil with a rubber eraser at one end. The court aptly pointed out that the rubber did not perform any function in connection with the writing. It remained inoperative, and could as well be absent. So in erasing the marks, the pencil remained inactive, did nothing, could as well be absent. These two things never worked together, and never accomplished any joint function or result.

A second ground of rejection that gives rise to much trouble and creates considerable argument and friction is applied to claims for alleged machine or apparatus methods or processes as distinguished from chemical and article methods.

It is not the purpose of this paper to discuss this class of claims from an academic view point or quote from the many learned expounders of this subject. Further, the matter has been ably treated in a previous paper presented to this body. It is desired here, however, to make, if possible, a few practical, rough suggestions which may be helpful in determining whether a claim is for a true method or for the function of the apparatus.

The authorities are pretty well settled that the old definition of the United States Supreme Court in *Cochrane vs. Deener* (11 O. G., 687), stands as about the most tangible and workable definition yet given. There must be present an act or a series of acts and they must be performed upon something to change it to a different state or thing. Remembering that only so-called machine processes are under consideration, and that the main difficulty is to distinguish them from the function of the machine or apparatus, it may be helpful to first note that the claim does not recite specific means or mechanism. If this specific mechanism is necessary to

support the alleged steps, it is probable these latter are inevitably the function of such mechanism. It is well to try to discover what the step is or what the series of steps are; to recognize them in the language used in the claim. Then the thing they are performed on should, if possible, be identified. This may be the electric current, as in the Telephone Cases (126 U. S., 1532), and *O'Reilly vs. Morse* (15 Howard, 62). If these can be identified it is generally easy enough to determine whether the steps are so tied to specific mechanism as to be but its function, or whether they can be performed, within the language or terms of the claim, by different mechanisms differently organized, or, if the nature of the steps permit, by hand. While no function can be carried out without some means to do it, yet the function must be distinct from the means, from its practical embodiment, and its immediate effect. There must be some other means, with some other embodiment, to which this function is common. Robinson on Patents cites the example of smoothing something, and explains how different things, like running water, a single knife, a sliding weight, a group of revolving knives, may perform this function. The machine step of smoothing, therefore, is performed by some means, but is not a function of any specific means, but is a function of several different mechanisms or means, and is a proper step of a method. Again, this author cites the function of exploding or igniting a substance, and notes this may be accomplished by different means, as a red hot iron, a flame, the electric spark, etc. The function is common to these different devices, and also these different devices can operate without producing the function of exploding or igniting a substance. These things have separate existence, the means is a permanent thing and the function is a transient, intangible thing.

If these principles concerning this class of claims can be had in mind considerable time can be saved, both in determining when a claim should be rejected and in making suggestions to an applicant who discloses but is not succeeding in properly claiming a method of this character.

There is another ground of rejection which is not

uniformly interpreted throughout the office. This is that the claim is functional in that it fails to recite the means for accomplishing the results specified. Sometimes the mere length of a functional statement, predicated upon a properly included means, is made the basis of rejection. Obviously this is in error.

The so-called "whereby" clauses, and those beginning with the word "adapted," are often found to be unsupported by the inclusion in the claim of the means for accomplishing these functions. In such cases, the means should be included. But the statement of means, mechanisms, or devices, accompanied by their functions, constitute the long accepted manner of drawing claims for mechanical inventions. If the elements are recited, the length of the functional clause is of no moment. If recited generically, the claim is merely broad and if otherwise patentable is allowable.

There is a class of claims wherein the entire invention is recited in the generic words "means," mechanism, or devices, accompanied by the functions of such means, or mechanism, without defining anywhere in the claim the structural nature of the means or mechanisms or devices. Of course these claims are as broadly drawn as possible, and in language, cover any and all means for accomplishing these functions, cover means substantially different.

There are at least two views held in this Office as to such claims. One is that they are too broad, are broader than the invention, and that they are therefore unpatentable. Beside several Commissioner's decisions there are decisions of the United States courts which look to the support of this view. (Consolidated Electric Light Co. vs. McKeesport Electric Light Co., U. S. Supreme Court, 159 U. S., 465; Madison vs. Campbell, U. S. C. C., 78 Fed. Rep., 910; Wilson Trolley Catcher Co. vs. Frank Ridlon Co., U. S. C. C. of Appeals, First Circuit, 159 O. G., 244; *Ex parte* Denning, 26 O. G., 1207; *Ex parte* Knudson, 72 O. G., 589; *Ex parte* Pacholder, 51 O. G., 295.)

The other view is that no matter what the breadth of terms used in the claim, an inventor is only entitled to what he has invented and produced, and substantially

its equivalents and, if the invention is of a pioneer character, the range of equivalents will be proportionally broadened when, on proofs, this is made to appear. These claims, if they can not be met by references, are, therefore, to be allowed.

The cases where courts have held such claims void on this ground alone, of being broader than the invention, are so few, and modern judges are so prone to construe claims to save a really meritorious invention that the question is one of no very great moment.

There is one other ground of rejection of which mention may be made. This is upon the so-called Hawley doctrine. This doctrine was first emphasize and made prominent in the decision of the Court of Appeals of the District of Columbia, *In re Hawley* (121 O. G., 691), although it is but a repetition of the substance of *Ex parte Griffith* (85 O. G., 936). This holding has been confirmed by the same court *In re McNeil* (20 Ct. App. D. C., 294), and *In re Ratican* (162 O. G., 540). Later the Circuit Court of Appeals, Third Circuit, held a claim void on this ground in the case of *Langan vs. Warren Axe and Tool Co.* (166 O. G., 986).

This doctrine is to the effect that where the combination recited in the claim is old and the distinction over the prior art resides in one element only of the combination and does not result in a modified or improved action of the other elements of the combination the claim is unpatentable and should be limited to the element *per se*.

The doctrine has been quite extensively applied by some Examiners and but little used by others. It is a proper ground of rejection when properly applied.

It is believed the vital determining factor is whether the element which has been improved constitutes a complete thing itself capable of separate and independent use, or one that has acquired a distinct status in the arts and trades. If neither of these conditions is present, it is doubtful if the doctrine applies.

In the Hawley case, the improvement was in a tape to be used in a recording mechanism. The latter was not modified in any way and was admittedly old. Obviously the tape fulfilled the conditions above noted.

No one would buy a new recorder every time he used up the tape, any more than one would buy a new typewriter machine every time he used up his supply of paper. The tape was clearly a separate subject of invention, a separate article of manufacture and sale and should not have been claimed in combination with the old recorder.

In the Ratican case, the invention resided in a nozzle for a street washing machine, otherwise old. It is plain enough the nozzle was a separate, complete unitary thing, did not in any manner change the operation of any part of the machine, was a separate subject of manufacture and sale. Obviously no one, wishing a new nozzle, would purchase an entire new street washing machine.

The case of *Langan vs. Warren Axe and Tool Co.* is a very much more important one. The decision was rendered by the United States Circuit Court of Appeals, the patent was already granted and the claim was held invalid.

There exists some difference of opinion as to whether this ruling may be said to uphold the so-called Hawley doctrine. There was a very plain discrepancy between the statement of invention in the specification and the structure covered by the claim. The specification made it very clear that the patentee had invented a new kind of grab-hook, and merely described how such hooks were to be used, in pairs, with a draft device in skidding logs. The claim, however, was for the combination of a pair of hooks with the draft device. The novel details of the hook were, however, specified in the claim.

The court emphasized this lack of consistency between the statement of invention in the description, which was that applicant had merely improved the hook, and the statement of the claim, and in doing so said:

“There is no suggestion that any part of the patentee’s invention resides in the combination of the grab-hooks and the draft appliance. The connection between the grab-hooks and the draft appliance by means of links or chains is mentioned, but such connection was as old

as grab-hooks themselves, and the patentee expressly states that his invention consists, not in any such combination, but in the particular and peculiar form of hook. . . . Not only is the claim for a combination foreign to what is set forth in the specification, but there is no new coaction or cooperation of the elements of the combination. The grab-hooks and the draft appliance of the patent, in combination, coact as grab-hooks and draft appliances have always done. The grab-hook of the patent, by reason of its peculiar construction and form, is very probably an improvement of no little utility. But the patentee can not, merely because of this fact, have a patent for a combination, which shall have, as one of its elements, a pair of such grab-hooks. He did not invent the combination. He invented, if he invented anything, an improved grab-hook."

On being urged by counsel to construe the claim as for the hook alone, the court said:

"Manifestly, we can not so construe it. The claim is for a combination of grab-hooks, of a peculiar form, and a draft device. We are not at liberty to distort its plain language."

Whatever may be the view as to the general effect of this decision, the fact is plain enough that this patentee lost his invention because he did not claim the hook alone, because he claimed it in the old combination which it did not affect in any new way.

It is hardly to be presumed the court would have found the claim valid if the patent itself had not contained the inconsistencies noted by the court, provided the proofs adduced at the trial had been such as to set forth this same state of facts.

This decision is sufficiently suggestive, that in plain cases, the doctrine should be applied.

In the usual house door-bell arrangement, in use all over this city, there is a push button switch, a bell, a battery, and the wire conductors. Each is a separate subject of

invention and has a distinct status in the art and trades. An inventor may improve the bell, the switch, the battery, or the wires. None of these improvements would affect the mode of operation of the other elements, and the claims should be confined to whichever element—the switch, the bell, the battery or the conductors—that is improved. A combination claim should not be allowed.

But if an invention is made in a part of the switch, or the bell, or the battery, which part has no general utility, no separate status, it is doubtful if the Office is warranted in objecting to a claim that includes the entire switch or the entire bell, or battery. These are unitary things, and to carry the Hawley doctrine to their details of structure constitutes a refinement of procedure that can only result in harmful confusion, friction and delay.

An adherence to this firmer ground in the application of this doctrine will in no way endanger the validity of any grant, but will save much time and needless argument.

In conclusion I leave with you, therefore, this suggestion:

If this great and ever-increasing quantity of work is to be carried on at all, if there is not to be such an accumulation of pending applications as will cause the whole examining system to fall of its own weight, there must be a greater uniformity of practice on the part of the various Examiners, there must be fewer needless objections, fewer needless rejections, better first searches, more carefully considered actions, both on the part of the Examiners and on the part of the applicants as well, and a more prompt conclusion of the pendency of cases before the corps.

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History and Purpose of Claims in United States Patent Law

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Corps of the United States Patent Office

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History and Purpose of Claims in United States Patent Law

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Inasmuch as the claims of an inventor constitute the chief bone of contention both in and out of the Patent Office, it is thought that a study of the evolution of the claims practice might not be without profit. While the first statutes did not positively require an inventor to summarize his invention in a claim or claims, the practice of doing so obviously grew directly out of certain requirements of these statutes. The United States practice, in its development, is the more interesting in comparison with that of the leading foreign countries.

Referring briefly to the requirements of some foreign governments, it is to be expected that our law should conform most closely (**Foreign Practice** (English)) to that of Great Britain which requires a complete specification "to conclude with a distinct statement of the invention claimed." Patentees should state, not what they claim *for* their inventions, but what they claim *as* their inventions. *Thornton on Patents, page 15.* The same author states the purpose of the claim to be "to define and delimit the invention, to enable the patentee to inform all whom it may concern exactly what it is he considers is his invention, and it is upon these claims that the validity of his patent invariably hangs."

Thornton gives the following rules for drawing claims under the English Practice:

Be clear and precise and carefully enumerate the essential features, having in mind the question "what is the *essence* of the invention."

Claim nothing that is not new.

Do not claim the principle alone, but only in combination with means for carrying it into effect. Claim the principle carried into effect in a specific way, and you automatically protect the principle. The discovery that the principle can be successfully applied is the important point and other devices involving the new principle would at any rate be subservient to the master patent. Do not claim the principle and every way of carrying it into effect.

Claim the combination if that is the novelty and also the one novel and essential element if there is one.

The clever claim-draftsman is the man who covers by his claim developments which are not actually in view, without imperilling the validity of the patent by the use of too ambiguous language.

Justice Fletcher Moulton in *British United Shoe Machine Company vs. Fussell and Sons* (Thornton, page 299), says that "the patentee must leave the public in no doubt whatever as to what constitutes that invention which he claims as his monopoly."

Under the English practice a reference to the specification and drawings in the claim limits the claim to the construction described and shown.

German Practice. The proposed new German Patent Law 1913 has this requirement with respect to the claim:

"At the conclusion of the specification it shall be stated what is to be placed under protection as patentable."

Under the German practice there must be some novel feature which performs or involves some new function. Claims for meritorious mechanical combinations are not patentable unless something has been accomplished which has not been accomplished before (Thornton on Patents). Radical improvements, for instance, in an internal combustion engine, which do not affect the cycle

of operations would be unpatentable but alterations of construction of apparatus of a trivial nature which would result in a different cycle of operations would be patentable.

“The claim should first recite the common type to which the improvement is applied and thereafter enumerate in a subordinate clause or clauses the characteristic feature which distinguishes the new manufacture from previous forms; that is, a statement of what is old is to be followed by a statement of what is new.”

Other Foreign Countries. The Austrian practice follows that of Germany. “Swedish practice is closely akin to that of Germany and Austria but applicant is obliged to characterize his invention more specifically in terms of the means employed for a particular purpose rather than in terms of the function to be discharged.” (Fairweather Foreign and Colonial Patent Laws, page 241.) Under the French law “to the specification must be appended a résumé or succinct enumeration of the fundamental principle of the invention and of the secondary features if any (Fairweather, page 168).

Early History. The early Patent History of the United States is not entirely devoid of the element of humor, nor does it lack elements which appeal to the sense of national pride and patriotism. In its making is embodied the genius of John Marshall, Joseph Story, Bushrod Washington, Joseph Bradley, and other great judges of the Circuit Courts and the Supreme Court of the United States. Among the advocates before the patent bar, are the names of Charles Sumner and Daniel Webster. The earliest grants were given under the signatures of George Washington, Thomas Jefferson, Edmund Randolph. Before 1836 the law required the signatures of the President of the United States, the Secretary of State, and the Attorney General, the latter being required to examine the applications to see that they were “conformable to law.”

An Early Decision. The following quotation from a decision of Judge Story rendered over a hundred years ago is interesting as showing the court's idea of the progress and advance of the art at that early period:

“In the present *improved state of machinery*, it is almost impracticable not to employ the same elements of motion to produce any new effect,” noting “the gradual progress of the invention from the first rude attempts to the *present extraordinary perfection*; from the slight combination of simple principles to the *present wonderful combinations* in ingenuity and intricacy scarcely surpassed in the world.”

Whittemore et al. vs. Cutter U. S. Circuit Court, 1st Circuit, Oct. 1813.

In the same court in 1814 (*Odiorne vs. Winkley*) we have a picture of a jury of unskilled citizens struggling with a “reference” in the form of a nail cutting and heading machine produced in court to be compared with the patented machine also produced. Expert witnesses testified as to the identity and diversity of the two machines in their principles and modes of operation. With no statement of the patentee of any value as to what constituted the invention, the jury must decide whether the patentee made an invention and if so in what it consisted.

Two Periods. In the evolution of the claim there are broadly two periods, that prior to 1836 and that succeeding this date. In practice there was no clearly defined line between these periods, one merging into the other with no marked change in 1836. Patents of the latter part of the first period almost universally have formal claims although not required by law. The law of 1836 merely endorsed and positively required what inventors had been doing voluntarily for years prior to this date.

THE STATUTES.

Requirement for a Distinction Between New and Old. The act of 1790 was the first Patent Statute. This act required the grantee of each patent to deliver to the Secretary of State a specification in writing, containing a description of the thing or things by him invented, which specification shall be so particular as to *distinguish* the invention or discovery from other things before known and used. This requirement for such a disclosure as will *distinguish* the new from the old forms the original basis of our claims. The direction is a general one, leaving it to the inventor to decide the best way to distinguish. The very early inventors thought the requirement satisfied merely by a description of the thing supposed to have been invented. In the case of an invention totally new, disconnected from other things before known and used, the law was easily conformed to; but not so in the case of an improvement on something already known.

The act of 1793 repeated the above requirement and added:

“In the case of a machine, he shall fully explain the principle, etc., by which it may be *distinguished* from other inventions.”

The requirement for a distinction between the new and the old is clear and positive in these early statutes. In the act of 1836, we find the first positive requirement for a claim in the words:

“He shall particularly specify and point out the part, improvement or combination which he claims as his own invention or discovery.”

Section 26 of the act of 1870 and Section 4888, R. S., change the wording to: “He shall particularly point out and distinctly claim.” These provisions of the various statutes constitute the sole basis for the law built up on this subject.

Practice Under Act of 1793. Referring to the practice under the acts of 1790 and 1793, it soon became apparent that the public and the courts had the great burden imposed on them of sifting out a patentee's invention by a careful scrutiny of the "schedule" or specification of the patent in connection with the prior art. Such was the case in *Odiorne vs. Winkley* and *Whittemore et al. vs. Cutter*, both above cited. In the latter case, Justice Story said:

"The intrinsic difficulty is to ascertain the exact boundaries between what was known and used before and what is new."

Summary Binding. Some of the early patentees voluntarily summarized their inventions at some point in the schedule or specification and it was uniformly held by the courts that in such cases, the patentee was bound by his summary. In *Moody vs. Fiske et al.*, Assoc. Justice Story (1820), where the patentee stated: "I claim as new and as my invention the following: 1. The position of the rollers," held the patent void because this position of the rollers as shown by the evidence was not new. The justice said:

It is often a serious difficulty from the obscure language of the specification to ascertain what is the nature and extent of the invention claimed by the patentee. Whether his patent be valid or not must materially depend upon the accuracy and distinctness with which the invention is stated. But in all cases where the patentee claims anything as his own invention in his specification, courts of law can not reject the claim. Where a patentee in his specification states and sums up the particulars of his invention and his patent covers them, he is confined to such summary.

Likewise Judge Baldwin in *Whitney et al. vs. Emmett et al.*, 3rd Circuit, 1831, holds "the summing up binding."

**Claim Construed
With Rest of
Specification.**

However, this stringency was frequently modified by construing the summary in connection with the rest of the specification if there were incorporated in the summary a reference to the specification. This interpretation of the law is noted in some of the later decisions of Justice Story. In *Wyeth vs. Stone* (1840), the following claim was held to save the patent on this theory:

“The invention of this art as well as of the *particular method of the application* of the principle is claimed by the subscriber.”

Likewise in *Stone vs. Sprague*, Fed. Cases, 13487 (1840), the same justice held that the patentee—

“limits his invention to the specific machinery and mode of communication of motion set forth and specifically described in the specification.”

The claim in this case stated:

“I claim as my invention the connection, etc., *as above specified.*”

The patents in these two cases were granted under the act of 1793. To the same effect are the decisions under the act of 1836 by Justice Woodbury in *Davoll vs. Brown*, Fed. Cases, 3662 (1845), and Justice Curtis in *Silsby vs. Foote*, 14 How., 226 (1852). The claim in the former case calls for:

“The arrangement of the spindles and flyers in two rows in combination with the described arrangement of gearing.”

The claim did not specify the kind of flyer but the court held it thus limited from the specification. The gearing could not be used with any other kind of flyer. In the latter case the justice states respecting the following claim:

“I claim the combination above described by which the regulation of the heat of a stove or other structure in which it may be used is effected.”

“The patent calls for all the elements of the combination as are actually employed to effect the regulation of the heat according to the plan of the patentee described in his specification.”

“When a claim does not point out and designate the particular elements which compose the combination but only declares, as it properly may, that the combination is made up of so much of the described machinery as effects a particular result, it is a question of fact which of the described parts are essential to produce that result.”

Early Decisions. The requirement for a distinction between the new and the old is insisted upon in numerous decisions under the early statutes.

The early judges followed a leading English decision to enforce this requirement of the law. Lord Ellenborough in *McFarlane vs. Price* (1 Starkies, N. P. R. 199), holds:

“It is essential to point out what is new and what is old. A patent ought to inform the person who consults it what is new and what is old. A person ought to be warned by the specification against the use of a particular invention.”

In *Lowell vs. Lewis* (1817) Fed. Cases, 8568, Justice Story says the patentee—

“should distinguish what is new and what is old in his specification so that it may clearly appear for what the patent is granted. . . .

If the description mixes up the old and the new and does not distinctly ascertain for which in particular the patent is claimed, it is void; since if it covers the whole it covers too much, and if not intended to cover the whole, it is impossible for the court to say what in particular is covered as a new invention. It is sufficient, however, if what is claimed as new appear with reasonable certainty on the face of the patent either expressly or by necessary implication. But it ought to appear with reasonable certainty; for it is not to be left to minute inferences and conjectures.”

One of the leading early cases is that of *Evans vs. Eaton*, 3 Wheaton, 518. This case first came before Chief Justice Marshall in 1818, in which the Chief Justice laid down the law as follows:

“In all cases where a patentee’s claim is for an improvement on a machine, it will be incumbent on him to show the extent of the improvement so that a person understanding the subject may comprehend distinctly in what it consists.”

When this case came up for a second trial in the Circuit Court of the United States for the District of Pennsylvania, Justice Bushrod Washington of the United States Supreme Court remarked: “Of what use is the specification unless it be to define with precision the extent and nature of the improvement,” and on appeal to the Supreme Court before Justice Story in 1822, the justice has this to say about the purpose of a patent specification:

“The specification has two objects:

“1st. To make known the manner of constructing the machine so as to enable artisans to make and use it and thus give the public the benefit of the discovery.

“2d. To put the public in possession of what the party claims as his own invention. The specification must distinguish the invention from all other things before known. How can that be a sufficient specification of an improvement in a machine which does not distinguish what the improvement is, nor state in what it consists, nor how far the invention extends; which describes the machine fully and accurately as a whole, mixing up the new and the old, but does not in the slightest degree explain what is the nature or limit of the improvement which the party claims as his own.”

This decision and *McFarlane vs. Price* were quoted and followed in *Barrett et al. vs. Hall et al.*, Fed. Cases, 1047, by Justice Story in the Circuit Court of the United States, District of Massachusetts.

In *Dixon vs. Moyer*, Fed. Cases, 3931 (1821) Assoc. Justice Washington says:

“It is not enough for the plaintiff’s counsel or the witnesses to point out at the trial or even for the jury to perceive by examination of the thing patented and comparing it with others before in use, what it is that constitutes the improvement. Third persons wishing to avoid submission to the penalty which the law imposes on them and the troubles and expense of litigation can safely depend upon no other information than what the records of the Secretary of State’s office afford. No description of the discovery secured by a patent will fulfill the demands of justice and of the law; but such as is of record there. The specification contains the whole truth relative to the discovery; but the objection is that throughout the whole of a very intelligible description of the mode of making the saddle, the patentee has not distinguished what was new from what was old before in use, nor pointed out in what particulars his improvement consisted.”

These decisions are followed by Justice Woodbury in *Hogg vs. Emerson*, 6 How., 484.

Decisions Under the Act of 1836. From a study of the above cases, the deficiency of the early patent specifications is easily seen. Endless difficulties for the courts and public, and great and irreparable loss to inventors and patentees resulted from failure to distinctly claim the invention to be covered by the patent. While the above decisions place the burden, under the law, of setting forth the invention on the patentee, as a matter of fact the cases show that this burden fell on the public and the courts because of the failure of the patentees to assume it. The obvious solution of the problem was to require the inventor to formulate his invention in a claim or claims at the end of his description. This, the act of 1836 for the first time positively required.

The mere embodiment of a formal claim as required by the act of 1836 however, was not a panacea for all difficulties. It remained for the lawyers of succeeding years to perfect the practice by evolving a claim of proper form and substance to clearly and distinctly set forth the invention. The claims of many patents under the new act remained so informal, indefinite, unprecise, and inadequate to define the invention as to afford little relief to the courts and public.

A patent to William Hovey granted September 23, 1845, was the subject of a suit in *Hovey vs. Stevens*, Fed. Cases, 6745, in the 1st Circuit under Justice Woodbury in 1846. The claim involved set forth giving to a cutter a traveling motion in combination with a reciprocatory rotary motion indirectly referring to the elements of his construction. The court was willing to construe the claim to be for "the mode or manner of producing these motions," the combination of which was, however, proved to be old. The law with respect to a distinction between the new and old was re-affirmed, this, said the justice, being part of the bargain with the Government.

"How easy it would have been to say what the inventor wished and to say it so as to be intelligible to all; some new part or combination of old parts. But now all is doubtful on the face of the patent. The only thing certain is the combination of the two motions, but this is admitted to be old."

An interesting case in which the patentee needlessly limited the definition of his invention is that of *Winans vs. Denmead*, 15 How, 341 (1853). The claim called for a car body in the form of the frustum of a cone. Justice Curtis held that other shapes of car bodies having the same mode of operation infringed the claim. "In contemplation of the law a patentee is deemed to claim every form in which his invention may be copied."

As showing how the courts looked upon the purpose of the claim in 1868 attention is called to the statement of District Judge Shipman Circuit Court for the District of Connecticut in *Blake vs. Stafford*, Fed. Cases, 1504,

following *Lowell vs. Lewis*, *Moody vs. Fiske*, and *Barrett et al. vs. Hall et al.*

“The office of the claim is to define the limits of the patented discovery claimed by the patentee as his exclusive property. If the court can clearly see the nature and limits of the invention, the claim will be upheld.”

Some Decisions of Commissioners of Patents. Coming now to certain decisions of early Commissioners of Patents, in *Ex parte Continental Wind Mill Co.*, C. D., 1870, Acting Commissioner Duncan held the following claim unobjectionable:

“The arrangement of gearing for communicating motion from the windwheel shaft to the driving shaft by interposed reversing cog wheels, substantially as described, in combination with the turn table, or equivalent, and the vane for holding the windwheel to the wind.”

The following reproof of the attorney is interesting as showing this early Commissioner's views respecting the form of claims:

“The claim is clumsily constructed and reflects little credit upon the professional skill employed in framing it. Yet, it can have but a single interpretation and in a legal aspect is unobjectionable.”

Claims in the Participial Form. Acting Commissioner Thatcher in 1872 criticises the following claim in a wet gas-meter specification:

Beginning of Modern Practice. “Increasing the area of the water surface in one chamber with relation to that in another chamber, by constructing the one chamber with the enlargement shown in Figures 2 and 3.”

The claim should read:

“The inlet chambers provided with an enlargement having a certain relation.”

Commissioner Leggett in the same year calls attention to the bad form of a similar claim in *Ex parte* John M. Cornell; also in *Ex parte* T. C. Hooper:

"I have no doubt but that, if allowed, the courts would by a liberal construction save the claim. The reference to mechanism would enable a court in its efforts to save the patent to so construe the claim as to make it embrace the means by which the ends of beams are prepared, although in terms the claim is for preparing the ends of the beams. The fact that courts will construe loosely-drawn and ambiguous claims so as to save the patent if possible is no valid reason for allowing such claims and is no justification of attorneys in pressing them upon the office. The public has a right to know the exact limitations of a patentee's monopoly and for that reason the law requires distinct, exact, and sharply defined claims (Sect. 26 and Rule 44).

The above view of the requirements of the law is repeated by Acting Commissioner Thacher in 1873 in the case of *Ex parte* Cox in an application for the re-issue of a patent granted in 1850, in which claims in the participial form were allowed without objection, "under a former lax practice. Now that they are before the office again, they should be amended to conform to the decisions of the courts and the present practice of the office." These decisions rendered over forty years ago are interesting as showing the beginning of the present practice of the office with reference to the positive inclusion of elements in a claim. Justice Bradley in *Ives et al. vs. Hamilton*, C. D., 1876, in a suit on a patent granted September 5, 1865, raised no objection to a claim in this participial form, viz.: "Giving to a saw a certain movement," etc., and Judge Blatchford in *Lull vs. Clarke et al.*, C. D., 1882, U. S. Circ. Court of Dist. of New York, construed this form of claim as one for mechanism, stating it to be awkwardly drawn but that the description must be looked to to ascertain what the mechanism is.

Under the principle of "*Lex non cogit ad impossibilia*"

the following claim was held good by Acting Commissioner Doolittle in 1876 in *Ex parte Tweedle*:

“As a new article of manufacture, the petroleum product hereinbefore specified and having the characteristics herein described,”

followed by a process claim by which the product was produced. It was held that it was not possible or practicable to more distinctly claim the product in question without repeating the greater part of the specification. It was “a new product as yet unchristened and its properties unknown had been discovered.” It was an exceptional case. The product could only be defined by reference to the process.

This decision therefore was not allowed to sanction the following claim for a medical compound in the case of *Ex parte Williams C. D.*, 1877:

“The hereinbefore described compound or composition of matter, consisting of the ingredients mentioned, prepared in the manner and proportion substantially as described and for the purpose set forth.”

Acting Commissioner Doolittle says the applicant might as well say:

“I claim the invention described.”

The claim should set forth the “composition consisting of the elements (naming them) in the proportions and combined in the manner described.

The Courts and **Modern Practice.** The following quotation from Justice Miller’s decision, Supreme Court of the United States, 1877, in *Merrill vs. Ycomans et al.*, sums up the state of the Patent Laws at that time:

“The growth of the patent system in the last quarter of a century (1852-1877) in this country has reached a stage in its progress where the variety and magnitude of the interests involved require accuracy, precision, and care in the preparation of all the papers on which the patent is

founded. The developed and improved condition of the patent law and of the principles which govern the exclusive rights conferred by it, leave no excuse for ambiguous language or vague description. The public should not be deprived of rights supposed to belong to it without being clearly told what it is that limits these rights. The genius of the inventor making improvement should not be restrained by vague and indefinite description of claims in existing patents from the salutary and necessary right of improving on that which has already been invented."

Justice Bradley approving this view of the law in *The Keystone Bridge Co. vs. Phoenix Iron Co.*, C. D., 1877, says:

"When a claim is so explicit, the courts can not alter or enlarge it. If the patentees have not claimed the whole of their invention they should have sought a re-issue. They can not expect the courts to read through the history of the art and spell out what they might have claimed but have not claimed. Since the Patent Act of 1836 the patent laws require that an applicant for a patent shall not only by a specification in writing fully explain his invention but shall particularly point out and distinctly claim the same. This provision was inserted in the law for the purpose of relieving the courts from the duty of ascertaining the exact invention of the patentee by inference and conjecture derived from laborious examination of previous inventions and a comparison thereof with that claimed by him. This duty is now cast on the Patent Office. There his claim is, or is supposed to be, examined, scrutinized, limited and made to conform to what he is entitled to. As patents are procured ex parte, the public is not bound by them, but the patentees are. And the latter can not show that their invention is broader than the terms of their claim; or if broader, they must be held to have surrendered the surplus to the public."

This view of the law is repeated by the same justice in *Burns vs. Moyer* 100 U. S., 671, 1879, 20 O. G., 1891.

To the same effect is the decision of Judge Nixon, U. S. Circ. Court, Dist. of New Jersey, 1880 in *Delaware Coal and Ice Co. vs. Paeker*, C. D., 1883.

“It is the office of the claim to reveal to the world what the characteristics of the invention are for which the patentee desires protection.”

That a patentee is strictly limited to his claim is taught in *Couse and Blood vs. Johnson et al.* C. D., 1879. Judge McKennon, U. S. Circ. Court, W. Dist. of Pennsylvania: *The Lehigh Valley R. R. Co. vs. Mellon et al.* C. D., 1881, Justice Woods, Supreme Court of the United States: *McKesson et al. vs. Carndick*, C. D., 1882, Justice Blatchford, U. S. Circ. Court S. Dist. of New York: *McCarty vs. Lehigh Valley R. R. Co.* (1895), 160 U. S., 116; *National Enameling Co. vs. New England Enameling Co.* (1906), 151 Fed. Rep., 19. On the other hand, in *Aram et al. vs. Moline Wagon Co.*, 1883, Judge Blodgett in U. S. Circ. Court for N. Dist. of Illinois, held a claim infringed even though the defendant used a different construction from that set forth in the claim where this part of the construction was old. The court held that the essential features of the patent were present in the defendant's machine. The patentee's invention can not be thus taken from him. Likewise, in a recent decision of Judge Lacombe, Circuit Court of Appeals, Second Circuit, 209 O. G., 1689, while the claim set forth iron as an ingredient, the court held the claim infringed by the defendant's composition although iron was not used but some equivalent therefor. The invention being a pioneer invention, is entitled to a liberal construction of the doctrine of equivalents.

In *Schillinger vs. Cranford*, C. D., 1886, Judge Hagner, Supreme Court of the District of Columbia, held a mixture of concrete and sand not an equivalent of tar paper, placed between blocks of concrete, although the claim called for “tar paper or its equivalent.” “One seeking a monopoly may surely be required to use plain terms that plain people may be able to understand, explaining what it is he claims to have invented.”

In *Thayer vs. Spaulding*, C.D., 1886, Judge Blodgett held the following claim infringed:

“The open cage provided with the forehead rest arranged in it substantially as represented.”

The patentee being the first in the art to show a rest for the forehead in a mask intended to protect the face, he had a right to cover the forehead rest broadly, not the special means by which he fixed it to the wires of the cage. The defendant's head rest performed the same function as that performed by the patentee's head rest, although fixed to the cage by different means.

In *Becker vs. Hastings et al.* C. D., 1884, Judge Butler, U. S. Circ. Court for the Eastern District of Pennsylvania, refused “to enlarge a claim by construction. Whether the claim might have been made broader in view of the invention described in the specification, and shown in the drawings, we need not consider. The language of the claim is plain.”

Acting Commissioner Dyrenforth in *Ex parte Holt*, C. D., 1884, says:

“The aim, the end, the purpose of the claim is to point out particularly and distinctly define the invention to be secured to the individual. The claim is the measure of the patent and the day has passed when the courts will search through the specification for information which it is the very office of the claim to impart.”

This law is repeated by the same Commissioner in *Ex parte Wilkin*, C. D., 1884, and *McClain vs. Ortmyer*, 141 U. S., 419 (1891).

In *Ex parte Paige*, C. D., 1887, Commissioner Hall says with respect to the purpose of the claim:

It should protect the public in two important and essential particulars:

1. To define the invention as a property, the use of which has become a monopoly by virtue of the patent, so as to protect the public who deal with it.

2. To define and mark out clearly the field of the invention with reference to the subject-matter involved so that the public inventive genius of the people may not be deluded by indefinite claims, or frightened or deterred from following inventive pursuits by claims apparently covering, matter, extent, or scope not possessed or not patentable.

In *Smith et al. vs. Murray et al.* C. D., 1886, U. S. Circuit Court, North Dist. of Illinois, Judge Blodgett held that a claim could not answer for a description of the invention, the claim specifying, "exsiccated ammonia-alum," although the specification did not describe the latter nor how to compound it with the other ingredients. That is, a claim without a specification is as deficient as a specification without a claim.

In *Rogers on Patents*, page 57, the present practice with respect to claims is summed up as follows:

"The tendency of the times appears to be to more simplicity and precision in the drawing of claims so that patents shall seldom require interpretation or construction and so that in any cause, whether in the Patent Office or without, the proceeding may be based upon a clear statement of the actual invention with only the limiting clauses necessary or desirable to place the invention in its proper relation to the art. The one essential thing is that the novel invention shall be clearly expressed."

THE "INVENTION" MUST BE DISTINGUISHED.

Referring to another aspect of this subject, it may be noted that a claim may particularly point out and distinctly define a certain structure but that structure may not be the applicant's or patentee's invention. In other words, the requirement of particularity, definiteness, and distinctiveness may be fully complied with, and yet the patent may be fatally defective because the party's invention (the part, improvement, or combination) is not distinguished in the claim with the emphasis on

the "invention," rather than the "distinction." This fault may manifest itself in two ways. A claim may include too much of the old with the new, or, it may cover the new too broadly. The point in mind is illustrated in the early English decision of *Hornblower vs. Boulton* King's Bench, Jan. 25, 1799. The patent in suit was that to James Watt for lessening the consumption of steam in engines by an alteration of, and addition to, parts common to all steam engines. The court held that Watt was not entitled to a patent for—

"the sole vending and making the whole engine so altered and improved; for such a patent would have been more extensive than the thing invented. The patent must be supported as granted for an improvement and addition to old engines known and in use."

If in such case, "the patent is for the whole machine, it is void." *Boulton vs. Bull*, 2 H. Bl., 463. The same law is set forth in *Bevil vs. Moore*, 2 Marshall's R., 211.

"If the invention be an improvement only . . . the specification should be drawn up in terms which do not include anything but the improvement" (*McFarlane vs. Price*).

These English decisions are approved by our own courts in *Whittemore vs. Cutler* (Justice Story); *Goodyear vs. Matthews* (Justice Livingston, 1814); *Lowell vs. Lewis* (1817); *Evans vs. Eaton*; *Barrett et al. vs. Hall et al.*, Fed. Cases, 1047 (Justice Story, 1818) and *O'Reilly vs. Morse*, 15 How., 119 (Justice Taney, 1853).

"A patentee can not include in his patent the exclusive use of machinery already known" (*Lowell vs. Lewis*).

"The law requires that a patentee shall not claim as new what is covered by a former invention whether made by himself or any other person" (*O'Reilly vs. Morse*).

A patent to McCormick granted in 1845, and involved in the suit of McCormick *vs.* Talcott, 20 How., 405 (1857) contained the following claim:

“I claim the combination of the bow L, and the dividing iron M for separating the wheat in the way described.”

Justice Grier states the law as follows:

“If he be the original inventor of the device or machine called the divider, he will have a right to treat as infringers all who make dividers operating on the same principle and performing the same functions by analogous means or equivalent combinations. But if the invention claimed be itself but an improvement on a known machine by a mere change of form or combination of parts, the patentee can not treat as an infringer one who has improved the original machine by the use of a different form or combination performing the same functions. The inventor of the first improvement can not invoke the doctrine of equivalents to suppress all other improvements which are not mere colorable evasions of the first.”

In Phillips *vs.* Page, Justice Nelson, 24 How., 164 Supreme Court of the United States, 1860, criticized a claim for “a precise organization of an old machine.”

“Instead of claiming the old parts, the claim should have excluded them and claimed the new by which the old were adapted to the new use, producing the new result.”

In Burr *vs.* Duryee, 1 Wall, 531, U. S. Supreme Court, 1863, Justice Grier says:

“An inventor who has made an improvement in a machine can not include all previous inventions, and have a claim to the whole art, discovery or machine which he has improved. All others have an equal right to make improved machines provided they do not embody the same, or substantially the same, devices or combination of devices which constitute the peculiar characteristic of the previous invention.”

The same statement of the law is repeated in *Case vs. Brown*, 2 Wall., 320, by the same justice (1864).

In *Burden vs. Corning*, 2 Fish, 489, Judge Hall in U. S. Circuit Court, N. Dist. of New York, 1864, states the law in these words:

“Before and after the plaintiff’s invention any person was at liberty to invent, patent, and use new and distinct improvements upon any or either of the then existing machines; any inventor might properly patent and use the device invented and patented by him for that purpose provided it was as independent, distinct and substantially different device from any of those previously invented. Although several inventors might obtain substantially the same result, if it was obtained by means substantially different in character, construction, and arrangement and mode of operation from any prior invention adapted to the same general purpose, the use of such means for a similar or even for the same purpose, would not infringe the rights of the patentee.”

To the same effect is the decision of Judge Wallace in the United States Circuit Court, S. Dist. of New York, in *Railway Register Mfg. Co. vs. Third Ave. Ry. Co. et al.*, C. D., 1888. The prior art showed a combination between the indicator and the trip-register:

“It was open to the patentee to invent a new one or one between the indicator and trip-register and a permanent register. But after he had done this, it was open to others to make a combination, between the same parts which would accomplish a similar result by a different organization, introducing a different mode of operation. The apparatus of defendants had done this.”

Their permanent register was actuated with every actuation of the trip register instead of at the end of the trip as in the patentee’s apparatus.

**Invention in Both the
Combination and a
New Element.**

That an invention may consist both in the combination of old elements and in a new element is taught in *Seymour vs. Osborne*, 11 Wall., 547, Justice Clifford in Supreme Court of the United States, 1870:

“Patented inventions are also made which embrace both a new ingredient and a combination of old ingredients embodied in the same machine. . . . The property of the patentee consists not only in the new ingredient but also in the new combination.”

**Invention in a
Single Feature.** Circuit Judge Drummond in *Brown vs. Selby*, Circ. Court, N. Dist. Illinois (C. D., 1871), criticises the patentee's claim thus:

“This claim is for the whole machine. The plaintiff was not the inventor of the corn planter. He was at most an improver. He should have stated what his improvement was. If a man merely improves an agricultural implement, he should clearly disclose what is new. A claim put in such general terms ought not be permitted to stand. The plaintiff lays his hand on the entire corn planting machine. He uses the improvements of others. It was not fair to the public to use those improvements and then say that he claimed them as well as his own. These vague and sweeping claims of entire machines where the patentee has only improved a part ought not to be encouraged.”

This statement of the law is repeated by Judge Woodruff, North Dist. of New York, 1873, in *Marsh vs. Dodge and Stevenson Mfg. Co.*

Commissioner Spear in *Ex parte Funck*, C. D., 1878, says:

“If an additional feature entirely independent of old elements so far as co-acting with them, is incorporated in a device, it must be manifest

that the claim should cease when it has specified the single feature. The retention of the old elements in the claim when there is nothing in common between them and the one newly added to the machine is a mis-statement of the invention, giving a fictitious importance to the improvement and defeating any accurate judgment of its merit because of the obscurity resulting from the erroneous association."

In *Ex parte Kitson*, C. D., 1881, Commissioner Marble held a claim good although it did not include "a feeding apron or means for feeding cotton to the grasping rolls." This, he said, is part of the old machine and need not be included.

"The improvement did not extend to the feeding apron. It performs the same function as in the old machine. Applicant's claims begin with his improvement. It is well settled that it is not necessary to include in a claim for a combination as elements thereof, all parts of the machine which are necessary to its action, save as they may be understood as entering into the method of combining and arranging the elements of the combination."

The same law is taught in *Ex parte Skinner*, C. D., 1881, by the same Commissioner.

In *Ex parte Laskey*, C. D., 1889, the applicant presented the following claim:

Invention in the "The combination with the stitch-forming and cloth-feeding mechanism
Combination. of a sewing machine, of an automatically expansible or yielding hemmer and feller to permit the passage of enlargements of the cloth, substantially as described."

The Examiner objected that applicant had only added to the old stitch-forming and cloth-feeding mechanism in a sewing machine, "an automatically expansible and yielding hemmer and feller." The means for securing this automatic action and the expansive and yielding action should be set forth.

Commissioner Mitchell stated that the Examiner's position was correct providing the two means noted were applicant's invention. But applicant insists that the combination is his invention—a combination of which the peculiar hemmer and feller is an element irrespective of the mere means by which its automatic action or its expansive and yielding action is secured. The inventor claims to be the first who used said hemmer and feller with the stitch-forming and cloth-feeding mechanism. He is entitled to the claim if new.

Cooperation Necessary to a Combination.

In *Ex parte* Griffith, C. D., 1898, Acting Commissioner Greely had the same question before him.

Mr. Greely said:

“Applicant can not be permitted to claim his invention in combination with any and every other invention which he may disclose without regard to whether there is any cooperation between them. An improvement in a particular element is a different thing from the combination of that element with others. A party may invent an improvement on a certain element of an old combination without in any manner changing that combination itself and in such case he is not entitled to a claim as the inventor of the combination, although it includes the thing which he has really invented. The statute does not require that applicant shall claim an apparatus which includes the thing which he has invented but that “he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery.”

In the well-worn decision of Acting Commissioner Moore in *Ex parte* McNeil affirmed by Judge Shepard of the Court of Appeals of the District of Columbia, C. D., 1902, the claim in controversy reads:

“In a sewing machine, in combination with stitch-forming mechanism, including devices for forming two rows of *irregular stitches*, the adjacent

loops of which are interlocked, of a trimmer arranged in advance of the stitch-forming mechanism, and in the line of the seam, substantially as described."

The presumed novelty set forth resided in a stitch-forming mechanism different from the reference showing the combination, i. e., one forming "irregular stitches, the adjacent loops of which are interlocked." Acting Commissioner Moore held that applicant, not being the inventor of the combination, there being no special co-action between the stitch-forming mechanism and the trimmer, each acting in its own way and not affected by the other and performing its function in the combination irrespective of the other, was not entitled to the claim.

In *Langan vs. Warren Axe and Tool Co.*, C. D., 1911, the Circ. Court of Appeals for the 3rd Circuit held a claim to a grab-hook bad because it included a draft appliance as an element of the combination. The grab-hook was new but grab-hooks and draft appliances in combination were old. The patentee did not invent the combination and should not have claimed it. The draft appliance acted in the same way as heretofore in the combination; that is, the new grab-hook did not act differently in the combination from old grab-hooks; hence the combination was not the new invention of the patentee.

The above decisions are supported by the long line of decisions on aggregations. The gist of the law as set forth by them is that there must be some *special co-operation* between a new element brought into an old combination and the elements of the old combination as explained by Commissioner Mitchell and Commissioner Moore. Herein lies the difficulty; i. e., to determine whether there is present this cooperation. The principle is clear but its application to individual cases difficult. As stated by Justice Story one hundred years ago:

"The doctrine of patents may truly be said to constitute the metaphysics of the law. The difficulty lies not so much in the general princi-

ples as in the minute and subtle distinctions which occasionally arise in the application of those principles.”

Barrett et al. *vs.* Hall et al., 2 Fed. Cases, 923.

The second fault above noted is illustrated in the telegraph case of **Claiming the New Too Broadly.** O'Reilly *vs.* Morse, 15 How., 119. The Morse patent claimed:

“The use of the motive power of the electric or galvanic current which I call electro-magnetism however developed for marking or printing intelligible characters, signs or letters at any distances, being a new application of that power which I claim to be the inventor.”

Chief Justice Taney, Supreme Court of the United States, 1853, held this claim too broad. It covered any other machinery to effect the same result. The court argues:

“Was the first inventor of the use of steam as a motive power in printing presses entitled to a patent giving him the exclusive right to use steam as a motive power, however developed, for the purpose of marking or printing intelligible characters? Prof. Morse has not discovered that the electric or galvanic current will always print at a distance, no matter what may be the form of the machinery or mechanical contrivances through which it passes. The patent embraces nothing more than the improvement described and claimed as new and that any one who afterwards discovered a method or means of accomplishing the same object substantially and essentially differing from the one described, had a right to use it; any one who uses substantially different means does not infringe the patent.”

In *Scott vs. Ford et al.*, C. D. 1878, Commissioner Spear held the following claim bad:

The combination with a printing machine of pasting and folding mechanisms, whereby sheets

are printed, pasted upon the desired lines of ultimate folding and folded so as to form a folded sheet or signatures.

“A printing machine was never before combined with pasting and folding mechanism. It was a revolution in the newspaper printing art. However, the claim exceeds the actual invention because it is not limited to a *web* printing press, the only kind shown. It has not been demonstrated how any other press than that style can be successfully operated in obtaining the desired ends.”

The following claim was held good:

The combination of printing, cutting, pasting, and folding mechanisms whereby a web of paper is printed, severed into sheets, said sheets pasted on their folding lines, and folded or doubled two or more times, to form complete folded packs or signatures.

In comparison with the decision in *O'Reilly vs. Morse*, an interesting decision is that of the American Bell Telephone Co. et al. *vs.* Spencer et al., by Judge Lowell in U. S. Circuit Court for the Dist. of Mass., in 1881. The fifth claim of the Bell patent called for a “method and apparatus for transmitting vocal or other sounds telegraphically by causing electrical undulations of the air accompanying the said vocal or other sounds, substantially as set forth.” The defendant used a different specific method of producing the electrical undulations, made on the principle of the microphone, the modern telephone transmitter. The Bell patent employed the armature of an electro-magnet set in vibration by sound waves. Judge Lowell said:

“If the Bell patent were for a mere arrangement or combination of old devices to produce a somewhat better result in a known art, then no doubt a person who substituted a new element not known at the date of the patent might escape the charge of infringement. But Bell discovered a new art—that of transmitting speech by electricity—and

has a right to hold the broadest claim for it which can be permitted in any case, not to the abstract right of sending sounds by telegraph without any regard to means, but to all means and processes which he has both invented and claimed."

Judge Lowell held:

"The invention to be for nothing less than the transfer to a wire of electrical vibrations like those which a sound had produced in the air,"

and that the claim was "not so broad as the invention," the court presumably having in mind the specific apparatus disclosed in the patent. It was drawn "in view of the *O'Reilly vs. Morse* decision to cover both a process and apparatus—any process and any apparatus of *substantially similar character to those described.*" Bell's patent distinctly points out that the undulations may be produced in other modes besides the vibration of an armature in front of a magnet. The defendant's microphone "does the same sort of work and does it in a mode not wholly unknown at the date of the patent." Bell's patent did not cover the exclusive use of electrical means for transmitting vocal sounds; but only of means "substantially similar in character." to the patentee's, the specification of the patent being construed with the claim. The Morse patent claimed the exclusive use of the voltaic current for transmitting signs at a distance.

As pointed out by Chief Justice Waite, U. S. Supreme Court, in *Overland Telephone Co. et al. vs. American Bell Telephone Co. et al.* (C. D., 1888, 322):

"A claim was however sustained in the Morse patent for making use of the motive power of magnetism, when developed by the action of a current or currents, substantially as set forth in the foregoing description, . . . as means of operating or giving motion to machinery which may be used to imprint signals upon paper or other suitable material, or to produce sounds in any desired manner for the purpose of telegraphic communication at any distance." "The effect of this decision," says Chief Justice Waite, "was

therefore that the use of magnetism as a motive power without regard to the particular process with which it was connected in the patent could not be claimed, but that its use in that connection could."

"In the present case the claim is not for the use of a current of electricity in its natural state as it comes from the battery but for putting a continuous current in a closed circuit into a certain specified condition for that purpose. It may be that electricity can not be used for the transmission of speech except in the way discovered by Bell; his patent gives him exclusive use then for that purpose. The apparatus as herein described is undoubtedly one in which an electro-magnet is employed and constructed 'substantially as set forth' in the specification. One acting by the variable resistance method is not described. The patent is for both the magneto and variable resistance *methods* but for the particular magneto apparatus described or its equivalent."

It is seen that Chief Justice Waite here saved the claim by construing it for the apparatus as limited by the specification.

In *Columbus Watch Co. et al. vs. Robbins et al.*, C. D., 1895, Circ. Judge Taft, U. S. Circ. Court of Appeals, 6th Circuit, saved the following claim by "restricting it by construction."

As an improvement in stem winding and setting watches, a winding and hand-setting train which is adapted to be placed in engagement with the winding wheel or the dial wheels by the longitudinal movement of a stem arbor that has no positive connection with said train, substantially as described.

The court held that the claim did not seek to appropriate devices and means for accomplishing results but construed the claim limited to the construction described.

In *Ex parte Opdyke* C. D., 1889, Commissioner Mitchell directs the following article claim to be rejected as too broad:

As a new article of manufacture, eye-glasses or spectacles having the part which comes adjacent the nose formed of a winding of animal or vegetable material.

The applicant sought to cover all material but mineral.

“MEANS” AND “MECHANISM.”

A line of decisions stirred up by Comm'r Hall in *Ex parte Paige*, (C. D.), 1887, treats this fault of excessive breadth in claims by the definition of the novel element of an applicant's construction under the term “means” or “mechanism.” The claim under consideration called for the following combination of elements:

“Mechanism substantially as set forth for conveying the type along the raceway; mechanism substantially set forth for guiding the same in its movement along the raceway; mechanism substantially as set forth for trying and ejecting the type from the raceway at the proper point; mechanism substantially as set forth for receiving the ejected type and lifting it into the type case.”

The examiner objected to this claim as “too vague and indefinite to meet the requirements of the statute (Sec. 4888).”

Commissioner Hall comments on the above claim as follows:

“He is endeavoring to claim something more and beyond the mere mechanism or machinery. He wants to cover not only the specific mechanism of the four groups but all mechanism that will accomplish these results. He would suppress all further improvements for mechanism that would accomplish these results. He may cover the four mechanical organisms and their equivalents but not all mechanism that could accomplish the same effect (*Burr v. Duryee*, 1 Wall, 535; *McCormick vs. Talcott*, 20 How., 406; *Case vs. Brown*, 2 Wall, 230). Where the elements of a combination are

new and do not possess recognized names (as reel, cutter, table, and rake in a reaper) the controlling and leading parts of the several organisms should be referred to as definitive of the invention (*Ex parte* Demming, Butterworth Commissioner; *Ex parte* Kerr, Acting Commissioner Dyrenforth; *Ex parte* Holt; *Ex parte* Wilkin, C. D., 1884)."

The Commissioner held that the terms "means" and "mechanism" should be used only for mere "adjunctive devices"; that is, not for the main elements of the machine.

In *Ex parte* Miller, C. D., 1888, the applicant claimed "automatically operating mechanism to impart alternate fast and slow movements to the driving shaft." Applicant believed himself to be first to apply such mechanism to his class of machinery. Commissioner Hall says:

"The principle is old. This varying movement has been applied by an infinite variety of means to an infinite variety of machines. Applicant can not therefore claim it broadly in his machine. He must limit his claim to his specific construction by which he accomplishes this variableness of movement."

To the same effect is the holding in *Ex parte* Treat, C. D., 1888, where the applicant was claiming the combination of three mills with "power actuated feeding devices" for each mill and "power-actuated transfer mechanism" between two of them where the combination of the mills was old, the above "devices" and "mechanism" constituting the essentials of the invention. These, the Commissioner held, must be particularly set forth.

Commissioner Mitchell in *Ex parte* Paekholder, C. D., 1890, held the following claim bad for the same reason, viz, the novel element is not set forth in respect to construction and mode of operation as distinguished from the result.

In an indicator exhibiting apparatus, the combination of a band upon which the exhibits are placed, two reels suitably mounted, upon which the band is wound, driving mechanism for one

of the reels and a moving vehicle upon which the apparatus is placed (*all old*) and means connected to the indicator for restoring the expended force to the driving mechanism, actuated by the motion of the vehicle;

notwithstanding the decision of the Supreme Court of the United States in *Morley Sewing Machine Co. et al. vs Lancaster*, C. D. 1889, holding the following claim good:

The combination in a machine for sewing shank-buttons to fabrics, of button feeding *mechanism*, appliances for passing a thread through the eye of the buttons and locking the loop to the fabric and feeding *mechanism* substantially as described.

The court nowhere intimates that the claims of the patent were "void for indefiniteness" although bristling with "means," "mechanism" and "appliances."

In *Ex parte Halpenny*, C. D. 1895, Assistant Commissioner Fisher comments on the following claim:

"The combination of bobbin-feeding, bobbin-separating and stick-filling mechanisms cooperating to feed and separate bobbins and fill bobbin-sticks therewith, substantially as set forth."

"It is the well-settled policy of the Office to allow inventors to claim their inventions as broadly as possible in view of the state of the art."

The claim is not indefinite and vague but too broad when only limited in the manner stated if the mechanism as broadly stated is old. If the novelty is in the specific mechanism, the applicant should be required to specify the novel features. The inference from this decision is that the claim would be allowable if broadly new. *Ex parte Knudsen*, same year, teaches the same practice; as well as *Ex parte Weaver*, C. D. 1897 (Commissioner Butterworth); *Young vs. Eick Co.* 1904; *Ex parte Donk*, C. D. 1905 (Commissioner Allen).

SUMMARY.

It is seen that compliance with the requirement of the first statutes for a distinction between the new and the old was crude and imperfect in the early patents; that the labor of ferreting out the invention covered by the patent was imposed on the courts and the public; that the desirability and necessity of shifting this burden to the patentee and Patent Office soon became apparent, both from the standpoint of the inventor and of the public who had to respect the rights of the patentee; that for years patentees voluntarily summarized their inventions in claims at the end of the specification; that the act of 1836 incorporated this practice into the law; that the first claims were crude, affording little relief, but that out of these primitive efforts at setting forth the invention through years of experiment there was evolved the clear, precise and definite claim demanded in modern practice; and that the claim should not only particularly point out and distinctly set forth structure including the invention but should claim "the part, improvement or combination" constituting the invention.

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Patent Office Drawings Relating to Applications

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Corps of the United States Patent Office

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WASHINGTON, D. C.
1915

Patent Office Drawings Relating to Applications

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PATENT OFFICE DRAWINGS.

One of the requirements of an application for a patent, when the invention can be illustrated, is a drawing, and when the drawing is properly prepared, although the specification may be poorly written, the Examiner has very little difficulty in understanding the invention.

Drawings have always been required, but not always up to the present standard. The old drawings were made in colors, and a tracing was also furnished, the tracing forming a part of the Letters Patent if the application became a patent.

In many of the old drawings more attention was paid to the artistic effect than to illustrating the invention. Especially was this true in agricultural implements, as the drawings would often show a landscape with trees and buildings, and the invention itself poorly illustrated.

To meet the requirements of the present time, especially since models are no longer required, the drawings should fully illustrate the invention, and be so complete that a person who is skilled in the art to which the invention relates could understand the purpose and operation of the invention without referring to the specification.

Ex parte Harley, 97 O. G., 2746.

Ex parte Sturtevant et al., 108 O. G., 563.

Ex parte Hodges, 105 O. G., 1534.

In fulfilling the above requirements, the draftsman should not only have in mind the execution, but a drawing that shows the invention clearly, in as few views as possible.

Many of the drawings are now made in which the artistic effect seems to be more thought of than showing the invention.

The different views, to properly illustrate the invention, should be decided upon before the drawing is commenced, and how the views are to be placed upon the sheet to the best advantage, to properly bring out the invention.

In many instances the draftsman unnecessarily turns the sheet of drawing upon its side and arranges the views to read lengthwise instead of across the sheet, and in so doing makes it inconvenient and a waste of time in handling and reading it; this is often done when the views could have been made across the sheet.

The attention of the Commissioner has been called to this fact, with the request that it be called to the attention of attorneys and applicants so their draftsmen would be more careful in preparing the drawings.

“The draftsmen who follow this practice probably do not realize how objectionable it is to have the figures of a drawing appear turned upon their sides when patents and pending drawings are being searched. Every time such a drawing is handled, it is a source of annoyance, since it is much more difficult to read illustrations upon their sides than those which appear upright.

“Much valuable time is lost in examination, because it is necessary to turn them to make sure that they are being read correctly, and the time wasted is not only that of the Examiner in this Office, but of attorneys and all others who may ever have occasion to examine such records; also the danger of overlooking details is also increased.

“Bound volumes of patents are rendered more inconvenient.”

There are occasions when it is absolutely essential that the drawings be turned, and in these cases it should be done, but the unnecessary turning should be avoided.

There are several other points that I wish to call attention to.

LETTERING THE DRAWINGS.

It would be much better if the attorneys or applicants would use numerals instead of letters, especially in a large number of cases, as the alphabet is soon exhausted and then requires exponents, and when exponents are used there is often difficulty in finding them, especially is this true on the lithographic copies, as they are reduced in size and are often blurred, as the exponents are usually much smaller than the letters of reference themselves.

If numerals were used, there would not be so much time used in locating the reference characters, since exponents would not be required.

UNNECESSARY VIEWS AND VIEWS ON TOO LARGE A SCALE.

Many cases could be properly illustrated with a fewer number of sheets of drawings, if unnecessary figures were eliminated. It is confusing, instead of increasing the clearness of the invention, to use unnecessary views.

It often occurs that figures are made to such a large scale that only one figure can be placed on a sheet, when, if made on a smaller scale, but still large enough to properly show the invention, several figures could be placed on one sheet and thus save the number of sheets required to be examined, not only by the examiner, but by every one who handles them.

SHADING.

Surface shading should be very sparingly used, as it is often confusing; this being especially true of the lithographic copy, since the required reduction makes the shading still closer, and in some cases almost impossible to understand without a very close inspection, and this close inspection requires time and would be unnecessary if the drawing was properly made; also, often some part will be overlooked on account of the confused condition, and thus a valuable reference may be overlooked.

Only such shading should be used as is open and does not tend to confuse when the drawing is lithographed.

Many drawings are finely executed but, as for showing the invention so that it may be quickly understood, are of very little account; this being caused by not properly choosing such views as will best bring out the invention.

It often occurs that there is not a single view which shows the essential parts in their cooperating relations, one with the other, but only details, and, although details are essential, it is also essential that the cooperation of the details one with the other be clearly shown.

SOLID BLACK.

Solid black should never be used to show sections, except for insulation, and then not on very large surfaces; when it is desired to show sections of metal, section lines should be used.

It has been claimed that some sections of metal, if made anywhere near to scale, would not be as thick as a fine line, and therefore a thick solid black line is used, but if the thick solid black line is an exaggeration of the thickness, why could not the exaggeration be carried still further and section lines be used, as Patent Office drawings are not required to be to an exact scale, and the drawing be made much clearer thereby?

SHADE LINES.

Shade lines should always be used, as they help materially in reading the drawings, for often shade lines will make clear some point that otherwise would be confusing.

Many draftsmen forget in preparing their drawings that the drawings have to be reproduced by photolithographing and that the Examiner, as well as all others who make examination as to novelty, are obliged to use such reproductions instead of the originals, and that therefore it is essential that all drawings be of such a character that when reproduced they will be open and easily read.

Many of the drawings are not made to scale, in fact, could not be so made, for, if they were, some of the parts that should be clearly shown would be so small that it

would be impossible to distinguish them; so, many of the parts are made much larger in proportion than others, and it is for this reason that it has been held that the exact proportions are not necessary in Patent Office drawings, and all that is required is that an operative device be shown, so that it can be built by one who is familiar with the art to which it appertains.

Ex parte Creveling, 98 O. G., 1708.

It sometimes occurs that a specification describes a construction which is not shown on the drawing, and where this is the case the drawings must be made to show what is described.

Ex parte Edgerton, 101 O. G., 1113.

If the specification describes the grain of the wood as running lengthwise, and this is included in the claims, it must be shown in the drawing.

Ex parte Davin, 100 O. G., 452.

The drawings are not complete unless they are signed by the applicant, or by his attorney, and the signature attested by two witnesses, the statute requiring that drawings be actually signed, and stamped signatures are not sufficient. Ex parte Krause, 56 O. G., 1708. A bill has passed the House, and is now pending in the Senate, doing away with attestation by witnesses. There is no objection, however, to having the drawings signed by the draftsman.

The witnesses sign the drawings not as to the invention shown, but as to the signature of the inventor or attorney.

Ex parte Kyle, 51 O. G., 1621.

If the signatures are improperly placed on the sheet, and can be erased without injury to the drawing, they can be erased and signed in the proper place, provided that the identical people, both witnesses and applicant, or his attorney, again sign the drawing; but if a new attorney or witnesses appear in the case, new drawings must be furnished.

Ex parte Zacharias, 98 O. G., 2171.

Also see Order 480-43, O. G., 1119.

When the inventor signs the drawing himself, and the signature is witnessed by two persons, the attorney can not thereafter attach his name below that of the inventor, as attorney, as it would not be necessary and would give a false impression as to the signature actually attested by the witnesses.

Ex parte McDonald, 101 O. G., 1829.

It often happens that the drawing filed does not properly show the device, and the requirement of additional figures is then proper, even if an extra sheet of drawings is required, as it is essential that every detail which goes to make the device more clearly understood by the Examiner, should be shown.

Ex parte Seitzinger, 100 O. G., 2773.

The preferred form should always be shown in the view showing the general combination.

“Where a party wishes to claim the general combination of parts and the specific form of some of the elements, he should include the preferred form of the elements in the figure of the drawings illustrating the combination which he wishes to claim, so that all claims will read upon the device shown in a single figure.”

Ex parte Welch, 93 O. G., 2104.

When the drawing is clear enough to enable those skilled in the art to make and use the invention, and when every feature of the invention that is claimed is shown, additional illustrations should not be required even if an exact scale is not used or the drawing is poorly executed.

Ex parte Turner, 101 O. G., 2078.

Drawings often require corrections after they are filed; this can be done under certain restrictions.

In the past many corrections were made, so that the examiners were unable to tell exactly what was originally filed, and in this way new matter was sometimes added.

This caused an order to be issued that no drawing be taken to the attorney's room without first filing a blue-print of the same, as originally filed, with the Examiner.

Order 1135, issued June 12, 1897, states that erasures and alterations in drawings can not be made unless a blue-print, or other photographic copy, has been filed in the case, and then the corrections or alterations could be made under the direction of the Examiner and subject to his approval.

The above order stated that alterations could not be made in the attorney's room, but attorneys could see their cases in the attorney's room without first filing a blue-print.

At the present time corrections can be made only after a black line photographic or lithographic print has been filed (Order No. 1958, Feb. 3, 1912), as blue-prints are not acceptable since it has been found that they are not permanent. The Office is often required to reproduce a drawing as originally filed, and if the drawing has been changed, and only a blue-print has been filed and it has faded, the copy could not be made. Also, all corrections now can only be made by the official draftsman of the Patent Office, Order 2112, March 30, 1914, as many corrections were made by unskilled persons who often spoiled the drawing so that it could not be lithographed without considerable extra work on the part of the Office.

All the amendments of the model, drawings or specification, and all additions thereto, must conform to at least one of them, as it was at the time of filing of the application, Rule 70.

When the drawings are unsatisfactory to the Examiner on account of their showing only detached views of details, and not the parts together in one view, so that their cooperation can be understood, the Examiner should require such a view, not only for his present use, but for future use in making searches, if the device should become patented.

It has been held that it is not always practicable for the Examiner to point out in detail just what changes would make the drawing clearly illustrate the invention, so long as he has not before him some complete representation of the invention, such as a model, and that general

objections thereto are sufficient to enable a skilled draftsman to cure the defect.

Ex parte Tuttle, 90 O. G., 1365.

When an application as originally filed describes an operation of a certain part, which would be impossible to understand without these parts being shown connected it would be proper to amend the drawings to show some form of connection.

Ex parte Wareham, 97 O. G., 1600.

A petition to amend a drawing, and thereby bring out a feature of construction not shown in the original drawing or disclosed in the specification as filed—but shown in a model, filed as an exhibit, which is not a part of the application described at the time of filing—should not be granted.

Ex parte Austin, 56 O. G., 1059.

The same part of an apparatus that appears in more than one figure of the drawing should be indicated by the same reference character, notwithstanding that one figure may be only a diagram and another a detail.

Ex parte Stimpson, 160 O. G., 1271.

When the original description and drawing disclose a complete and operative device, and the changes proposed are not to correct mere errors of the draftsman, nor to supply manifest omissions in the features of the invention, but would form the basis for description and claims not warranted, these changes should not be permitted, as it would be adding new matter.

Ex parte Alman, 97 O. G., 191.

Also Ex parte Delbey, 96 O. G., 1240.

When changes sought to be made to certain figures, which are not to correct what was unintentionally omitted from the drawing as originally filed, or not to correct a mere error on the part of the draftsman, but, on the other

hand, seeks to add an unessential feature purposely omitted from them when originally filed, these changes should not be allowed.

Ex parte Johns, 96 O. G., 1649.

Applicant should not be permitted to erase the lines of his drawings and make a new construction of a part fully shown and described, or replace a well described but inferior arrangement by a preferable form.

Ex parte Snyder, 22 O. G., 1975.

Ex parte Clay 97 O. G., 2980.

When the drawing is passed by the draftsman as for execution, and the Examiner finds no fault on account of not fully showing the invention, and the case has practically been prosecuted to an allowance, if a new drawing is filed, calling for the cancellation of the old one, it should not be accepted. To admit the same would cause an additional, unnecessary burden on the Examiner, and would be unfair to other applicants whose cases are awaiting action on the part of the Office.

Ex parte Pugh, 96 O. G., 841.

There are two principal reasons for the rules that require drawings to be limited to as few sheets as possible consistent with a clear showing of the invention:

1st. It is a serious problem to find space for the storage of the drawings, whether they be from a patent or an abandoned application, on account of the present overcrowded condition of the Office.

2d. The useless expense of lithographing unnecessary sheets for the purpose of attaching the same to the patent.

Ex parte Pfautz, 159 O. G., 489.

In the same line as the above decision, it would be well to state that multiplying the drawings unnecessarily causes extra work for the Examiner in making searches and is also a useless expense for the applicant.

Ex parte Descher, 93 O. G., 551.

Modifications described in the specification should be shown in the drawings or the description canceled.

Ex parte Peck, 96 O. G., 2409.

The statute requiring a drawing means a drawing showing what is described, and a part can not be omitted any more than the whole of it. The question is not whether the construction can be understood without a drawing, but whether it can be illustrated.

Ex parte Edgerton, 101 O. G., 1131.

When two sheets of drawings are filed with an application, and the figures on one sheet clearly illustrate all the features of construction covered by the claim, the other sheet is unnecessary and should be canceled.

Ex parte Phillips, 105 O. G., 1779.

There never should be more sheets of drawing in an application than is necessary to clearly illustrate the invention.

Ex parte Roadhouse, 111 O. G., 1368.

The question of superfluous illustrations must, in general, be decided in view of the limitations which are included by the claims, and should be insisted on only when the case has been restricted to allowable claims.

Ex parte Miller, 119 O. G., 1259.

When unnecessary figures on a drawing are required to be canceled, and the scale of the remaining figures reduced, so they could all be placed on one sheet, such a requirement is correct.

Ex parte Keil, 131 O. G., 2144.

Drawings for Designs and Trade-Marks must conform to the same requirements that govern drawings in mechanical cases.

February 18, 1915.

Mechanical Processes AND Functional Claims

A paper read February 18, 1915, before the Examining
Corps of the United States Patent Office

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1915

Mechanical Processes and Functional Claims

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There are few, if any, classes of claims more difficult to deal with than those coming under the above headings, and perhaps none in which the decisions seem more at variance. This lack of apparent uniformity is, of course, largely due to the fact that no two cases present precisely the same state of facts. From this arises the practical difficulty that the citation of a number of decisions by the Examiner is usually met, on the part of the attorney, by an even more formidable list. Decisions are thus chiefly useful in enabling the Examiner to make up his own mind; they are rarely effective in convincing the attorney of the error of his ways; and even where the Examiner is sustained on appeal, the reasons and decisions relied on by the appellate tribunal are frequently quite different from those cited by him in the primary consideration of the case.

It will be of some assistance to the young Examiner if he will bear in mind the order of importance of the various tribunals whose published decisions are supposed to guide him in his work. This order, which is not the same in the Office as in outside legal practice, is believed to be as follows: 1st, the Commissioner then in Office; 2d, the Supreme Court of the United States; 3rd, the Court of Appeals of the District of Columbia, and 4th, the various Circuit Courts of Appeal. The decisions of the Commissioner are placed first in the order of importance because he is the responsible head of the Office and all patents are issued in his name. It is to be presumed

that his decisions are made with a due regard for those of the courts and he is entitled to have his interpretation of the law followed by the Office force. The District Court of Appeals is given preference over the Circuit Courts because it has the final voice in most matters arising within the Office and it would be obviously improper and incongruous to do otherwise than follow such courses of procedure as it may indicate. No attempt will be made in this paper to give an exhaustive list of decisions bearing upon the subjects under consideration. The few cited are mainly those which are believed to be in harmony with the present Office practice.

There never seems to have been any doubt but that inventions which related to the production of a definite product, and involved chemical or other elemental action were proper subjects for process claims. In the case of articles which involved merely a change in form of the material acted upon, however, the question was long in doubt. In 1895 the Supreme Court in *Risdon Iron Works vs. Medart*, 71 O. G., page 751, said "Processes of manufacture which involve chemical or other similar elemental action are patentable, though mechanism may be necessary in the application or carrying out of such processes, while those which consist solely in the operation of a machine are not."

The Supreme Court was still in doubt on this subject in 1898, see *Boyden vs. Westinghouse*, 83 O. G., page 1067, wherein the following statement is made: "*Risdon vs. Medart*, and other cases, assume, although they do not expressly decide, that a process to be patentable must involve a chemical or other similar elemental action, and it may still be regarded as an open question whether the patentability of processes extends beyond this class of inventions."

It should be noted that four justices dissented from this opinion. These statements of the Supreme Court were quite generally taken as precluding process claims in the absence of elemental action. Not all of the courts, however, adopted this construction, and in 1901 the Court of Appeals of the District of Columbia in *In re Weston*, 94 O. G., page 1786, expressed the opinion that processes involving simply mechanical changes in the

material acted upon might be patentable if the processes could be performed by hand or by mechanism other than that shown or preferred. For the sake of comparison with later cases, Weston's claim 1, which was allowed by the court, is here quoted:

"1. The described method of manufacturing a symmetrical coil for an electrical measuring instrument, consisting in first forming a supporting frame or spool by subjecting a short tube of metal to pressure until the desired conformation and shape is obtained, then winding the coil thereon and finally securing the pivot pins in the axial line of the coil."

In 1909 the Supreme Court set its seal of approval upon this type of claim in the Expanded Metal Case, 143 O. C., page 863, wherein it held valid a process claim for making metal lathing from sheet metal. The process in this instance could be carried out by hand although for profitable commercial purposes a specially designed machine was required.

It will be noted that in the foregoing instances and in fact in the large majority of cases which have been passed on by the courts, the process produces a definite, tangible article. In certain divisions of the Office, however, cases of alleged mechanical processes are constantly being filed which relate merely to the production of power and perhaps also its application to a driven shaft. These cases have a certain likeness to those of the most approved process type in that they involve an "elemental" action consisting in changes in temperature, pressure, degree of moisture and sometimes in the chemical composition of an expansible fluid. There is, however, no tangible product produced and the element subject to change usually passes through a definite cycle or cycles at the end of which it is either restored to its original condition or is exhausted as a waste product of some description, usually a gas.

While not strictly analogous, the following claim declared valid by the Circuit Court may be of value:

"The herein described method of changing the speed of an electric motor which consists in main-

taining upon each one of three or more conductors a potential difference from that on any other one of the conductors and connecting the armature terminals of the motor with different pairs of said conductors.”

See Bullock Electric Mfg. Co. vs. Crocker Wheeler Co., Federal Reporter, Vol. 141, page 101.

In the absence of authoritative decisions upon this class of cases, those Examiners who have frequently to deal with such processes may be interested in the following claims which have been recently passes upon by the Examiners-in-Chief.

The first application discloses a steam turbine and a hot water heating system. Steam is withdrawn from an intermediate stage of the turbine and used to heat the water in the system. The amount of steam so used is regulated by varying the speed at which the water is pumped through the heater.

The claim which was held on appeal to be a proper process claim is as follows:

“The herein described process of variably regulating development of power and heat in a combined power and heating system, which comprises expanding a heated expansible working fluid in a suitable motor, withdrawing a portion of such working fluid from an intermediate expansion point of the motor, and exchanging heat between the working fluid so withdrawn and another fluid to be heated, and variably regulating the rate of absorption of heat by such second fluid with respect to the rate of supply of working fluid to said motor, and thereby variably regulating the proportion of the initial heat energy of such working fluid converted into power to the heat energy imparted to said heating fluid.”

In the second application a boiler supplies high pressure steam to a water injector and the combined mass of steam and water is delivered against the blades of a

turbine rotor. All of the steam is then condensed and pumped back into the boiler.

The following claim was held on appeal to be a proper process but was not allowed on account of references:

“The method of operating automobile power plants employing low speed steam or gas turbines, which consists in generating an expansive fluid at high pressure, converting the energy thereof into kinetic energy in a fluid of higher density, thereby imparting a low velocity to the denser fluid, delivering the last named fluid to a rotary part of a suitable turbine, and condensing and returning in the system such of the fluid as has become evaporated.”

The third application discloses a turbine consisting of a number of thin, closely spaced discs, transversely mounted on a shaft and enclosed in a casing. A nozzle in the casing admits steam against the edges of these discs and tangential to their peripheries. The steam winds around in a spiral path between the discs, causing them to revolve by its adhesive action and is finally exhausted through openings in the discs near the center.

The original application disclosed both apparatus and method claims, but the method claims were later canceled and presented in a divisional case in order to secure a speedy allowance of the parent application, which application became a patent shortly thereafter. It should be noted that division was not required by the Examiner.

The claim presented in this case is as follows:

“The method of deriving energy from a fluid under pressure which consists in causing it to flow through unobstructed passages in a runner rotatably mounted in a closed casing so that it is free to follow natural spiral paths from peripheral ports of inlet to central ports of outlet, and thereby propelling the runner by the adhesive and viscous action of the fluid upon the plane surfaces of the passages therein.”

The Examiners-in-Chief sustained the rejection of this claim, stating that in spite of its being nominally a process claim it was in reality an apparatus claim, and would have precisely the same scope if written in the following form:

“A machine for deriving energy from a fluid under pressure through the adhesive and viscous action thereof upon plane surfaces which comprises a runner rotatably mounted in a closed casing, a peripheral port of inlet, a central port of outlet, and an unobstructed passage through the runner such that the fluid is free to follow natural spiral paths in its passage through the machine.”

The appellate tribunal further held that such a claim as the foregoing could have been presented in the original application or in a reissue thereof, and that to allow the claim or a substantial equivalent thereof in another case would result in extending the monopoly conferred by the first patent. They called attention to such decisions as *Century vs. Westinghouse*, 191 F. R., page 350; *Thomson vs. Hoosie*, 80 O. G., page 967, and *Miller vs. Eagle*, 66 O. G., page 845. The purport of these decisions is that while a patent for a process may issue after the grant of one for the apparatus, a second patent which merely covers the same invention in somewhat broader terms is ordinarily invalid.

The case just considered sets forth a unitary structure through which the steam passes steadily in a path absolutely determined by the construction of the engine and which no change in size or proportions would affect except in degree. It would seem, therefore, that the action of the steam is just as much a function of the machine as is the action of a train of gears in a clock mechanism.

The first two applications set forth groups of devices which might be combined in various ways and in which differences in proportion or in manipulation of the various parts will produce widely different results.

In the first case all of the apparatus assembled in the same relation was shown in a single reference, yet the claim was held to be for a valid process because a certain

pump was manipulated in a way not contemplated by the patentee.

While in no sense conclusive, the following considerations may be found useful in dealing with alleged process claims involving the production of power by the use of an expansible fluid, and possibly in certain other cases where no tangible product is produced.

First: A process is not anticipated by an apparatus which might be used to carry out the process but was not, in fact, intended to do so.

Second: There is probably no patentable process in a single machine using an expansible fluid, where the cycle of change in the fluid is uniform and definitely fixed by the construction of the machine.

Third: There is a presumption of a patentable process in the arrangement of a group of devices to produce a novel result, particularly where matters of proportion and relative position are important. This presumption is considerably strengthened if the process necessitates the manipulation of one or more of the devices involved.

If applications of the kind under consideration are not patentable, it is usually because the alleged process is in reality merely the function of the machine, and this leads naturally to the consideration of functional claims.

It is so well recognized that direct claims for a function are not patentable that such claims are never presented except by an occasional applicant who is quite unfamiliar with patent practice.

The greatest difficulties arise in connection with claims containing one or more clauses beginning with "means," "mechanism," or some similar expression, and followed by a statement of the function performed thereby. There has been considerable variation in the liberality with which such claims have been regarded.

The Supreme Court has several times set its seal of approval on claims involving sets of mechanism defined by the result produced, see, for instance, *Morley vs. Lancaster*, 47 O. G., page 267, in which the following claim was held valid:

"The combination, in a machine for sewing shank-buttons to fabrics, of button feeding mech-

anism, appliances for passing a thread through the eye of the buttons and locking the loop to the fabric, and feeding mechanism, substantially as set forth."

The ideas expressed by the court in these decisions were elaborated and possibly carried further than the court intended in a series of Commissioner's decisions extending over the next ten years; see, for instance, *Ex parte Pacholder*, 51 O. G., page 295; *Ex parte Halfpenny*, 73 O. G., page 1135, and *Ex parte Knudsen*, 72 O. G., page 589.

This last decision has become almost a classic and for years no examination for promotion was considered complete in which it was not involved. It divides functional claims into four classes, of which only the third is of interest here.

This class defines the construction as "means," "mechanism" or "devices" for effecting certain results or it defines certain named elements by statements of function instead of structure. The decision further states:

"The use of the above noted phraseology does not of necessity render a claim objectionable, for where the idea is clearly stated and the combination or relation of parts to produce a desired end is plainly expressed, the breadth of statement of the claim is no reason for objecting to it. . . . When indefinite, such claims should be objected to; but they can only be rejected on references when these disclose both the complete combination and the functional qualifications covered by the claim."

The result of this decision and others of like nature, was that the attorneys, and to some extent the examiners, came to consider that a claim was patentable over the art if it contained a clause prefaced by the word "means" followed by a statement of a novel function. There was a gradual reaction from this extreme view, the present practice being more nearly that indicated by the District Court of Appeals in *In re Gardner*, 140 O. G., page 258.

In this decision the court ruled adversely on the following claim:

“In a vapor register, in combination with a suitably inscribed dial, a device for automatically indicating thereon simultaneous pressures and heat characteristics for superheated vapor.”

In spite of the use of the word “device” this claim was held to be substantially a claim for a function since it apparently covered all means by which the function could be carried out. The court also called attention to the Supreme Court decision of *O’Reilly vs. Morse*, 15 Howard, page 62, the bearing of which on this class of cases had been largely lost sight of. In this case, although the court held that Morse was the first to convey intelligence by electricity, it denied him a claim covering broadly “means” for so conveying intelligence while allowing him a claim for “electro magnetic means” for the purpose.

It is not believed that there is any conflict between the decisions just considered and those of the Supreme Court which sustain certain claims for sets of mechanism. A claim for “means” for performing a particular function is certainly indistinguishable in scope from a claim for the function itself; while a claim involving sets of mechanism, even though each clause be for “means, etc.,” is not a claim for a result but rather for a series of steps for obtaining it, and the field is still left open for others who attain the same end by the use of more or fewer or different elements.

The essence of the Gardner decision would appear to be that an inventor is not entitled to a claim in which the whole novelty consists in a single statement of function even if the clause is headed by the word “means” or some similar expression. There must be some hint as to the nature of the means, some suggestion of structure which will aid other inventors or the courts in applying the doctrine of equivalents.

Claims of this type are sometimes rejected as being “broader than the invention.” The fundamental difficulty appears to arise from the fact that the patent law makes no provision for the patenting of a function or result, but only of the means whereby it is accomplished.

Furthermore, an inventor is only entitled to protect the means which he actually discloses for the purpose *and substantial equivalents thereof*. He should not, therefore, be allowed a claim which appears to cover *all* means whereby the result may be accomplished, since to do so gives the public the impression that the whole field of invention in that particular line is closed, and also imposes an unnecessary burden on the courts by forcing them to read into the claim limitations which are not apparent on its face.

It would certainly be to the advantage of inventors of machines, and would perhaps result in more even justice, if our laws, like those of Germany, permitted functional claims. A discoverer of a new function often makes quite as valuable an invention as the discoverer of a new process, and it would seem as though he was entitled to equally broad protection.

At present he must steer between the Scylla of a process claim, which the Examiner will probably reject as being for the function of the machine, and the Charybdis of an apparatus claim which, if as broad as the other, is likely to be opposed by such decisions as *Gardner and O'Reilly vs. Morse*.

The Supreme Court in *Steinmetz vs. Allen*, 109 O. C., page 549, called attention to the fact that process and apparatus may approach each other so nearly that it would be difficult to distinguish the process from the function of the machine and indicated that in such cases of close relationship both kinds of claims might be joined in a single application, although the court did not go so far as to state that either set would be invalidated if applicant elected to patent them separately.

In doubtful cases of this kind it is probably best to allow the applicant both process and apparatus claims, providing they are presented in a single case. It would be manifestly improper to hold that the alleged method set forth merely the function of the machine and at the same time to require division, for the mere presence of the doubt is sufficient to show that but one invention is involved and that the sole question at issue is the manner in which it shall be expressed. If the applicant takes out a patent containing simply apparatus claims,

there is considerable danger that he will not secure the measure of protection to which he is entitled, while if it contains only process claims he is liable to have the court invalidate them as being functional. If the two sets of claims are presented in separate patents, there is danger that one patent or the other will be invalidated as unlawfully extending the monopoly unless both patents issue on the same date. It would appear proper in co-pending applications of this kind for the Office to require a consolidation of the claims in a single case and, in the event of a failure to comply, to reject one of them on the other as soon as that other was passed to allowance.

February 18, 1915.



NOVELTY

A paper read February 25, 1915, before the Examining
Corps of the United States Patent Office

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WASHINGTON, D. C.
1915

Novelty

By

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The question of novelty of inventions arises whenever a person seeks to enjoy the exclusive right to an invention, under the protection of a patent, as against the interests of the public.

This subject involves two inquiries; first, an inquiry into the law, rules and tests applied in determining the identity or diversity of inventions; and second, an inquiry into those statutory provisions in view of which novelty may be affirmed or denied of any one of identical inventions. This paper will be confined, in the main, to a discussion of questions arising under the second of these inquiries, those arising under the first belonging more properly to the domain of "invention."

A comprehensive understanding of the law of novelty requires that we keep in mind the fundamental principles which underlie our patent system. Robinson, in his law of Patents, states five principles, which he conceived to be fundamental, two of which are peculiarly applicable to the subject under discussion. They are:

1. "That under our existing civilization public policy requires the State to encourage the exercise of inventive skill by conferring upon inventors a temporary monopoly in their inventions, and by securing to them its enjoyment.

2. That the grant and acceptance of this monopoly creates a contract between the inventor and the State, obliging the former to an immediate and complete disclosure of his invention to the public, and the latter to the legal protection and vindication of the monopoly in the invention thus disclosed."

We should also keep in mind the important bearing that the leading English cases have in the interpretation of our laws. The patent acts of the United States are, in a great degree, founded on the principles and usages which have grown out of the English Statute; and "where English Statutes . . . have been adopted into our legislation, the known and settled construction of those statutes by the courts of law has been considered as silently incorporated into the acts, or have been received with all the weight of authority." (*Pennoek vs. Dialogue*, 2 Peters, 1.)

To promote the progress of the useful arts is the policy of all enlightened governments; and experience has taught that this can be best accomplished by securing to inventors for limited times the exclusive right to their inventions. To grant to an inventor the exclusive right to his invention tends to awaken the inventive faculties and to encourage inventors in disclosing their secrets to the public.

The fact that the inventor confers a benefit upon the public, constitutes the essential principle upon which all patent systems are founded, and without which they would not be permitted to exist. This is the broad principle that distinguished the lawful from the unlawful monopolies that flourished in England prior to the enactment by Parliament of the Statute of Monopolies (21 Jac. ch., 3), and which influenced the British Parliament when they introduced into the Statute of Monopolies the proviso, that any language declaring void "all monopolies, and all commissions, grants, licenses, charters, and letters patent, heretofore made or granted, or hereafter to be made or granted, to any person or persons, bodies politic or corporate whatsoever, of or for the sole buying, selling, making, working, or using of anything, within this realm, etc.," should not extend to "any letters patent and grants of privilege for the term of fourteen years or under, hereafter to be made, of the sole working or making of any manner of new manufactures, within this realm, to the true and first inventor and inventors of such manufactures which others, at the time of making such letters patent and grant, shall not use, so as also they be not contrary to the law, nor

mischievous to the State, etc.” And the framers of our Constitution were no doubt guided by the same principle when they empowered Congress to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries. (U. S. Constitution, Article 1, Sec. 8.)

This principle has been recognized generally by our courts as the vital characteristic of our patent system. Thus, in *Blanchard vs. Sprague*, 3 Sumner, 535, Judge Story said:

“Patents for inventions are now treated as a just reward to ingenious men and as highly beneficial to the public, not only by holding out suitable encouragements to genius and talents and enterprise, but as ultimately securing to the whole community great advantages from the free communication of secrets and processes and machinery which may be most important to all the great interests of society, to agriculture, to commerce, and to manufactures, as well as to the cause of science and art.”

From the above it is evident that the primary object of our patent system, is not, as popularly supposed, to reward meritorious inventors, but to “promote the progress of science and useful arts.” The interests of the public are of primary consideration while those of the inventor are but secondary and subordinate. A patent granting to an inventor, for a limited time, the exclusive right to his invention is but a means to the desired end; and it is only when an inventor has promoted the progress of science and useful arts by creating and disclosing to the public a new and useful invention that he is entitled to the protection of a patent.

The theory that a patent is a contract was suggested first by Lord Eldon (*Cartwright vs. Arnott*, Easter Term 1800, cited in *Harmer vs. Playne*, 11 E., 101), and has been re-stated many times by the courts both in England and in the United States. In *Whitney vs. Emmett* (Baldwin, 303), Mr. Justice Baldwin said:

“A patent is a bargain with the public in which the same rules of good faith prevail as in other contracts. . . .”

In *Century Electric Co. vs. Westinghouse Electric Mfg. Co.* (207 O. G., 1249) the court said:

“A patent is a contract made by the acceptance by the Government of the offer which the patentee by his application makes to disclose his invention, in consideration that the United States will secure to him the exclusive use and sale of it for seventeen years.” See also *Grant vs. Raymond* (6 Peters, 218).

The terms and conditions of the contract between the inventor and the Government are those prescribed by the acts of Congress relating to patents. Section 4886 of the Revised Statutes provides, subject to certain other conditions and limitations therein specified, that:

“Any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvements thereof, not known or used by others in this country before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, . . . may . . . obtain a patent therefor.”

Section 4892 of the Revised Statutes provides that:

“The applicant shall make oath that he does verily believe himself to be the original and first inventor or discoverer of the art, machine, manufacture, composition or improvement for which he solicits a patent; that he does not know and does not believe that the same was ever before known or used. . . .”

And section 4920 of the Revised Statutes provides, that in an action for infringement the defendant may plead the general issue and prove on trial any one or more of the following special matters:

“Second. That he (the plaintiff) had surreptitiously or unjustly obtained the patent for that which was in fact invented by another, who was

using reasonable diligence in adapting and perfecting the same; or—

Third. That it has been patented or described in some printed publication prior to his supposed invention or discovery thereof, . . . or,

Fourth. That he was not the original or first inventor or discoverer of any material and substantial part of the thing patented;”

The law, therefore, requires as one of the conditions precedent to the grant of a patent, that the invention shall be “new.” In fact, this is a vital element of the contract, for if the invention be not new, then the inventor is in no position to give to the public the required consideration for the grant. The element of novelty of an invention has always been regarded, both in England and in the United States, as essential to the validity of the patent. Lord Coke, in his commentary upon that clause of the Statute of Monopolies which excepts letters patent from the general prohibition of monopolies, says that the letters patent thus referred to “must be of such manufactures which any other at the time of making letters patent did not use; for albeit it were newly invented, yet if any other did use it at the making of the letters patent or grant of the privilege, it is declared and enacted to be void by this act (3 Inst., 184).

In *Evans vs. Eaton* (3 Wheaton, 454) the Supreme Court held:

“Under the patent law if a thing secured by patent had been in use or had been described in a public work anterior to the supposed discovery, the patent is void whether the patentee had knowledge of this previous use or not.”

By the act of 1790, Congress prescribed as an essential condition to the grant, that the invention be new to all the world, the language of the act being, “not before known or used;” by the act of 1793, the right to a patent was limited to those inventions “not known or used before the application;” by the act of 1800, to those inventions “never before known or used in this or any foreign country;” whereas the law as it now stands is far more

liberal to the inventor as will hereinafter more fully appear.

While the law requires that an invention, in order to be patentable, shall be new, yet this condition is not absolute either as to time or place. In the eye of the law an invention is new when it is:

(1) "not known or used by others in this country before his (the inventor's) invention or discovery thereof, and—

(2) not patented in this or any foreign country before his invention or discovery thereof, and—

(3) not described in any printed publication in this or any foreign country before his invention or discovery thereof."

These statutory requirements of novelty will be considered in the above order.

PRIOR KNOWLEDGE OR USE.

The words of the Statute, "not known or used by others," mean "not known or used by the public." (*Pennoek vs. Dialogue*, 2 Peters, 1.)

Prior knowledge of an invention such as will negative its novelty must, as a rule, include its practical use. (*Searles vs. Bouton*, 21 O. C., 1784; *Judson vs. Bradford*, 16 O. C., 171.) Such use of the invention is usually necessary to demonstrate its operativeness and practicality and to communicate knowledge thereof to the public. In *Sayles vs. Railway Co.* (4 Fisher, 584) it was held that where the identity between the two cases can be ascertained only by actual use, such use is necessary to negative novelty. But where an invention is complete and capable of being employed practically and this is evident from the mere inspection thereof, it will negative the novelty of a subsequent invention, where the two are identical, although not actually used before the date of the subsequent invention (*Coffin vs. Ogden*, 18 Wall., 120; *Reed vs. Cutter*, 1 Story, 590; *Bedford vs. Hunt*, 1 Mason, 302; *Whitely vs. Swayne*, 7 Wall., 685).

A prior invention, in order to anticipate a subsequent

invention, need not necessarily be used by the public but only in a manner accessible to the public. (*Cayler vs. Wilder*, 10 Howard, 477.) In *Carpenter vs. Smith* (1 Web., 530) on motion for a new trial, Ebinger, C. B., said:

“Public use means a use in the public so as to come to the knowledge of others than the inventor, as contradistinguished from the use of it by himself in his chamber. . . . The public use and exercise of an invention means a use and exercise in public not by the public.”

To constitute prior knowledge and use of an invention, the extent of the use and the number of persons to whom the knowledge has been communicated is immaterial. The prior knowledge and use by a single person is sufficient. (*Stead vs. Williams*, 2 Web., 126; *Coffin vs. Ogden*, 18 Wall., 120; *Bedford vs. Hunt*, 1 Mason, 302; *Bannerman vs. Sanford*, 99 F. R., 294). Novelty may be negatived by evidence that only one specimen of the thing patented was made in this country prior to the invention to the patentee, even though it were not used until that time. (**Corn Planter Patent**, 23 Wall., 181; *Parker vs. Ferguson*, 1 Blatch., 407; *Pitts vs. Wemple*, 2 Fish., 10.)

A secret use of an invention by its author or by others, under injunction of secrecy, can never bar the right of a subsequent inventor to a patent. (*Carpenter vs. Smith*, 1 Web., 530; *Kendall vs. Windsor*, 21 Howard, 322; *Mason vs. Hepburn*, C. D., 1898, 510; *Thomson vs. Weston*, C. D., 1902, 521; *Matthes vs. Burt*, C. D., 1905, 574; *Aeme Co. vs. Cary Mfg. Co.*, 96 F. R., 344.) But where an invention is used by others than the inventor, in their trade, even though in concealment, but without any injunction as to secrecy, the use is a use in public. (*Heath vs. Smith*, 3 Ell. & B., 255; *Reed vs. Cutter*, 1 Story, 590; *Dalby vs. Lynes*, C. D., 1895, 381.)

To negative novelty, the prior knowledge or use must have been of the invention itself and not of mere representations thereof. Written descriptions or drawings do not constitute prior knowledge or use of an invention. (*Detroit Lubricator Mfg. Co. vs. Renchard*, 9

F. R., 293; Lyman Ventilating & Refrigerator Co. *vs.* Laylor, 6 O. G., 642; Northwestern Fire Extinguisher Co. *vs.* Philadelphia Fire Extinguisher Co., 6 O. G., 34.) Nor is novelty negatived by the prior construction of a model. (Union Paper Bag Machine Co. *vs.* Pultz & Walkley Co., 16 Blatch., 76; Kelleher *vs.* Darling, 14 O. G., 673; Gamewell *vs.* Municipal Signal Co., 61 F. R., 948.) With reference to prior drawings and prior models, Walker, in his Patent Laws (Sec. 61) states:

“Novelty is not negatived by any prior unpublished drawings, no matter how completely they may exhibit the patented invention; nor by any prior model, no matter how fully it may coincide with the thing covered by the patent. . . . The reason of this rule is not stated with fullness in either of the cases which support it, but that reason is deducible from the statute, and from the nature of drawings and of models. The statute provides, relevant to the newness of patentable machines and manufactures and improvements thereof, that they shall not have been previously known or used by others in this country. Now, it is clear that to use a model or a drawing, is not to use the machine or manufacture which it represents, and it is equally obvious, that to know a drawing or a model, is not the same thing as knowing the article which that drawing or that model more or less imperfectly pictures to the eye. . . .”

In *American vs. Wagner* (151 F. R., 576) Judge Coxe (Lacombe & Townsend concurring) commented upon the above section and, after having reviewed the authorities cited by Mr. Walker, said:

“The law, section 4886 of the Revised Statutes, provides that any person may obtain a patent, inter alia, for a machine invented by him, ‘not known or used by others in this country before his invention or discovery thereof.’ It is clear, as pointed out by Mr. Walker, that knowledge of a model of a machine is not knowledge of the

machine itself any more than knowledge of a model of Brooklyn Bridge is knowledge of that structure. But we think the rule should be restricted to a model pure and simple as the word is understood in common parlance, viz., a pattern, a copy, a representation usually upon a reduced scale. The word "model" should not be construed to mean the identical device which is covered by the patent. . . ."

A device which is essentially a toy, without practical use, and not suggesting the subsequent invention, will not be held to anticipate. (*Westinghouse vs. New England Granite Co.*, 110 F. R., 753.)

Nor is novelty negatived by prior forfeited or abandoned applications (*Corn Planter Patent*, 23 Wall., 181; *Northwestern Fire Extinguisher Co. vs. Philadelphia Fire Extinguisher Co.*, supra, and rule 177); nor by applications for patents (*Adams vs. Howard*, 26 O. G., 825; *Howes vs. McNeal*, 15 O. G., 608; *Barker vs. Stowe*, 14 O. G., 559; *Thomson-Houston Elec. Co. vs. Ohio Brass Co.*, 130 F. R., 542). These are not inventions, are not accessible to the public, hence confer no benefit on the public. (*General Electric Co. vs. Allis-Chalmers Co.*, 190 F. R., 165; *Vacuum Engineering Co. vs. Dumm*, 209 F. R., 219.)

A mere prior application is not a bar to a subsequent application except as affecting priority. (*Brown vs. Guild*, 90 U. S., 181.)

To negative novelty the prior invention and the subsequent invention must be identical. (*Judson vs. Bradford*, 16 O. G., 171; *Ellithorp vs. Robertson*, 4 Blatch., 307; *Livingstone vs. Jones*, 1 Fish., 521.) And the prior invention to be effective as an anticipation must have been in its completed state. A leading case to this effect is *Coffin vs. Ogden*, supra, in which Judge Swayne said:

"If a thing were embryotic or inchoate, if it rested in speculation or experiment, if the process pursued for its development had failed to reach the point of consummation, it can not avail to defeat a patent founded upon a discovery or inven-

tion which was completed, while in the other case there was only progress, however near that progress may have approximated to the end in view. The law requires not conjecture, but certainty. If the question relates to a machine, the conception must have been clothed in substantial forms, which demonstrate at once its practical efficacy and utility." (See also *Washburn vs. Beat Em All*, 143 U. S., 275; *Gottfried vs. The Phillip Best Brewing Co.*, 5 Bann & A., 4; *Wayne vs. Holmes*, 2 Fish., 20; *Howe vs. Underwood*, 1 Fish., 160; *Galloway vs. Bleaden*, 1 Web., 521; *Drawbaugh vs. Seymour*, C. D., 1896, 527.)

An alleged anticipation must disclose a practically operative device (*Simonds vs. Hathorn*, 93 F. R., 958); and should show the invention subsequently patented in such manner as to enable one skilled in the art or science to which it relates, to make or construct and practically use the invention for the purposes contemplated by the subsequent patent. (*McNeely vs. Williams*, 96 F. R., 978.)

And to be effective as an anticipation, it is not only necessary that the prior device shall have been complete and operative but it must have been used publicly. In *Lincoln vs. McWhirter* (142 F. R., 967) the court said:

"It is not enough to defeat the patent that some one other than Gilmour had conceived the invention before he did, or had even perfected it, so long as it had not been in public use or described in some patent or publication. If Gilmour was an original inventor, though a subsequent one, it was his right to obtain a patent. . . ." (See also *American Caramel Co. vs. Thomas Mills & Bro.*, 149, F. R., 743.)

Unsuccessful and abandoned experiments are not inventions, hence, do not negative the novelty of the subsequent inventions (*Deering vs. Winona*, 155 U. S., 286; *American Bell Telephone Co. vs. Molecular Telephone Co.*, 32 F. R., 214; *Brown vs. Guild*, 90 U. S., 181; *Coffin vs. Ogden*, 85 U. S., 120); nor is novelty negatived by

prior abandoned inventions, when complete and operative, where knowledge thereof had not been communicated to the public. But where the prior abandoned inventions had been used in public, and the use was not for experimental purposes, the right to a patent therefor is forever lost. As was said in *Pennoek vs. Dialogue* (2 Peters, 1):

“It has not been, and indeed can not be, denied that an inventor may abandon his invention and surrender and dedicate it to the public. This inchoate right, thus once gone, can not afterward be resumed at his pleasure; for where gifts are once made to the public in this way, they become absolute.”

Where it was shown that six pairs of cuff-button links were made and although they never went into general use, yet they were used for a short time by two or three of the witnesses, held to be a prior use and not an abandoned experiment, and to invalidate a patent for a later invention (*Flomerfelt vs. Newwitter*, C. D., 1898, 562). See also *Clisby vs. Reese* (88 F. R., 645); *United Shoe Machinery Co. vs. Greenman* (153 F. R., 283); *Sayles vs. Railway Co.* (4 Fisher, 584); *Waterman vs. Thomson* (2 Fish., 461).

An inventor may abandon his invention to the public by a disclosure but without claiming it in his patent and when he does so no one else acquires the right to obtain a patent therefor. See *Ex parte Grosselin* (C. D., 1901, 248), and the decisions therein quoted.

Where the question at issue is one of priority between rival inventors the later inventor who has received a patent, or who has completed his invention and given it to the public in commercial form, will prevail over an earlier inventor who had deliberately concealed his invention, suppressed its use and withheld it from the public. In such case the earlier inventor abandons his right to his rival. (*Mason vs. Hepburn*, C. D., 1898, 510; *Marcioni vs. Shoemaker*, C. D., 1907, 392; *Whitney vs. Brewer*, C. D., 1912, 127; *Quenzer vs. Collis*, C. D., 1912, 172; *Henderson vs. Gilpin*, C. D., 1913, 310.) And in *Barber*

vs. Wood (207 O. C., 299) the Examiners-in-Chief ruled as follows:

“We are satisfied that the testimony in this case shows that Wood with knowledge that Barber was in the field, deliberately withheld his invention from the market and neglected to renew his forfeited application or to reassert his claims for a patent until practically the end of the period allowed by the statute, and that such conduct on the part of Wood amounts to an abandonment of the invention within the meaning of that term as used in section 4897, R. S.”

But it is well settled that this doctrine will not be extended to cases not falling clearly within it. Concealment or suppression by the first inventor, or some other of the elements essential to the doctrine of estoppel, must be clearly established by competent evidence. (*Walker vs. Lederer*, C. D., 1912, 177; *Lederer vs. Walker*, C. D., 1912, 560.)

Nor is novelty negatived by a prior accidental production of an invention unaccompanied by such knowledge as to enable the act to be repeated (*Ransom vs. New York*, 1 Fish., 252; *Filghman vs. Proctor*, 102 U. S., 707; *Wickelman vs. Dick*, 88 F. R., 264); nor by anything that was neither designed, nor adapted nor actually used to perform the function of the thing patented (*Clough vs. Manufacturing Co.*, 106 U. S., 178; *National Brake-Beam Co. vs. Interchangeable Brake-Beam Co.*, 106 F. R., 693); nor by prior inventions in non-analogous arts. In *Potts vs. Creager* (97 F. R., 78) the Supreme Court held:

“We do not think the disintegration of apples or of cocoanut kernels is so analogous to the disintegration of wet clay that the ingenuity shown in the adaptation of the device for disintegrating clay can be minimized by reference to these other arts.”

And in *Ansonia Brass and Copper Co. vs. Electric Supply Co.*, 144 U. S., 11, where an insulated cable or

wire was in question, the citation of a submarine cable coated somewhat similarly for the purpose of rendering it impervious, and not intended at all as a high insulator, was held not good as a citation.

If the prior devices are taken from analogous arts, they should furnish a clear suggestion of the subsequent invention. The rule was stated in *Williams vs. American String-Wrapper Paper Co.* (86 F. R., 641), as follows:

“Anticipation ought not to be found in prior devices in the art to which a patent belongs unless they are of such a character as to furnish clear, if not unmistakable suggestion, of the improvement in question; and if the anticipatory suggestion comes from another art, it should, of course, have less significance, proportioned inversely to the distance from which it is brought.”

Prior knowledge and use such as will negative the novelty of an invention, must have been in this country. Section 4886 R. S. so prescribes and section 4923 R. S. provides further:

“Whenever it appears that a patentee, at the time of making his application for the patent, believed himself to be the original and first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof, having been known or used in a foreign country, before his invention or discovery thereof, if it had not been patented or described in a printed publication.”

The reason for this provision of the law was stated in *Gayler vs. Wilder* (10 Howard, 477), as follows:

“But if the foreign discovery is not patented, nor described in any printed publication, it might be known and used in remote places for ages, and the people of this country be unable to profit by it. The means of obtaining knowledge would not be within their reach, and so far as their interest is concerned, it may be the same thing as if the improvement had not been discovered. It is the in-

ventor here that brings it to them and places it in their possession, and as he does this by the effort of his own genius, the law regards him as the first and original inventor, and protects his patent, although the improvement had in fact been invented before and used by others." (See also, *De-Ferranti vs. Westinghouse, Jr.* C. D., 1890, 114.)

Nor is novelty negatived by prior knowledge in this country of the use of an invention in a foreign country. In *Westinghouse Machine Co. vs. General Electric Co.* (C. D., 1913, 493) the court found that one DeKando had actually made his invention abroad and reduced it to practice; that one Waterman, an electrician, went abroad to inform himself as to the invention of DeKando; that the details of the invention were explained to him; that he saw the invention in actual use; that DeKando furnished him with an elaborate description of the invention; that he brought to the United States the information that he had gained in Europe, together with the description of the invention and notes that he made relating to the invention; that he made a written report of the invention to one Stillwell and described the same, in the United States, to a number of electrical engineers of standing, all capable of understanding the invention; and that he explained the invention to the American Institute of Electrical Engineers, in the United States, all prior to the legal date of the invention of the same thing by Armstrong, the patentee. Notwithstanding these facts the court sustained the validity of Armstrong's patent. (See also, *Doyle vs. Spalding*, C. D., 1884, 181; *Gueniffet et al. vs. Wictorsohn*, C. D., 1908, 367, and *De Kando vs. Armstrong* C. D., 1911, 413.)

The words of the statute, "before his invention or discovery," mean at the time of his invention or discovery. The state of public knowledge at the time an invention is made is the measure of an inventor's rights; and in an infringement suit, where anticipation is set up as a defense, it must be established as of a date anterior to the date of the patentee's discovery or invention; not merely

prior to the date of the application for or the date of his patent. (Von Schmidt *vs.* Bowers, 80 F. R., 121; Plough Works *vs.* Starling, 140 U. S., 184; Loom Co. *vs.* Higgins, 105 U. S., 580.)

And even though an invention may have been fully known to the public at a former period, yet if it has become lost and forgotten one who re-invents it confers a benefit upon the public and is entitled to the reward of a patent. This doctrine was announced in *Clayler vs. Wilder*, *supra*, in which Chief Justice Taney said:

“It is well-known that centuries ago discoveries were made in certain arts the fruits of which have come down to us, but the means by which the work was accomplished are at this day unknown. The knowledge has been lost for ages. Yet it would hardly be doubted, if any one now discovered an art thus lost, and it was a useful improvement, that, upon a fair construction of the act of Congress, he would be entitled to a patent. Yet he would not literally be the first and original inventor. But he would be the first to confer on the public the benefit of the invention. He would discover what is unknown, and communicate knowledge which the public had not the means of obtaining without his invention. . . .”
(See, also, *Converse vs. Matthews*, 58 F. R., 246, and *Mason vs. Hepburn*, C. D., 1898, 510.)

But in order to be able to determine the state of public knowledge at the time an invention is made, it is necessary first to fix the legal date of the inventive act.

This question was considered very exhaustively by Judge Colt in *Automatic Weighing Machine Co. vs. Pneumatic Scale Corporation* (166 F. R., 288) in which he reviewed all of the leading cases bearing on the question. The following excerpts from his opinion appear to sum up his conclusions:

“From these established and seemingly contradictory principles of the patent law, first, that an invention in order to be patentable must be reduced to practice, and second, that, under the statutes, reduction to practice is not essential

either before or after the grant of a patent, it follows that there must be some stage of an invention when it must be presumed as a matter of law that the inventor has reduced his invention to practice; and that stage is presumed to have been reached when he has done all that he is required to do to obtain a valid patent, namely, when he has filed a complete and allowable application; and hence the Patent Office has adopted the rule that the filing of such an application is constructive reduction to practice, and the Federal Courts have adopted the rule that such an application is conclusive evidence that the patentee made his invention . . . that is, reduced his invention to practice . . . at least as early as that date.

“The law appears to be well established that a conception evidenced by disclosure, drawings, and even a model, confers no rights upon an inventor unless followed by some other act, such as actual reduction to practice, or filing an application for a patent. A conception of this character is not a complete invention under the patent laws. . . . An inventor must not stop with this stage of his invention, but he must proceed with reasonable diligence to perfect his invention, either by actual reduction to practice, or by filing his application for a patent.

“We understand the true rule to be that a patentee who undertakes to carry back the date of his invention to his drawings and disclosure must show reasonable diligence in adapting and perfecting his invention, either by actual reduction to practice or by filing his application. This rule is supported by the great weight of authority, and we have found no cases which directly hold that this is not the law. . . .

“No sound reason has been advanced why the doctrine of diligence should not apply to a patentee as well as to an inventor who has not secured a patent. On the other hand, any such distinction in favor of patentee is not in harmony with the patent laws. We have seen that an invention

in the sense of the patent law signifies a completed invention, and that the earliest date of an invention is the time of its completion. We have also seen that an invention may be completed either by actual reduction to practice or by filing a complete and allowable application in conformity with the statutes.

“This general principle, however, is subject to this qualification:

By section 15 of the act of July 4, 1836, c. 357 5 Stat., 123, it is provided that a defendant in an action upon a patent may set up in defense that the plaintiff had ‘surreptitiously or unjustly obtained his patent for that which was in fact invented by another who was using reasonable diligence in adapting and perfecting the same.’”

“Section 6 of the act of Feb. 21, 1793, c. 11, 1 Stat., 322, provided that the defendant in an action upon a patent may set up that the plaintiff ‘had surreptitiously obtained a patent for the discovery of another person,’ and section 15 of the act of 1836 amended by this section by adding the words ‘or unjustly,’ and the words ‘for that which was in fact invented by another who was using reasonable diligence in adapting and perfecting the same.’”

“This amendment introduced a new and just principle into the patent law, inasmuch as it protected the first conceiver of the invention by permitting him to carry back the date of his invention to the time of his drawings and disclosure, provided he was using reasonable diligence in adapting and perfecting his invention. . . .”

It sometimes occurs that the public come into possession of the full knowledge of an invention, from an independent source, after its conception by a later inventor but before he has reduced it to practice, or filed an application for a patent, the inventor, in such cases conferring no benefit on the public; and yet the later inventor under the law, as interpreted by the courts, is entitled

to a patent for his invention, provided he has exercised due diligence in reducing his invention to practice or in filing an application. The law, thus interpreted, is not entirely consistent with the principle that a patent is a contract, except upon the theory, that the inventive act is continuous and indivisible and is primarily an act of mind, the hand being the mere agent of the mind in embodying the inventive idea. The mental part of the inventive act in such cases, having been completed in advance of the public knowledge of the invention and nothing remaining to be done except what could be accomplished by the skilled mechanic, it seems reasonable and in harmony with the general policy of our patent system, to permit the later inventor to carry the date of his invention, and with it, the inchoate right to a patent, back to the date of its conception.

As to whether the doctrine of constructive reduction to practice is applicable to inventions disclosed but not claimed in applications for patents, the Court of Appeals, D. C., in *Saunders vs. Miller* (C. D., 1909, 461) said:

“The filing of the process application can not be considered as constituting a constructive reduction to practice of the apparatus, for it was not the invention involved in the application.”

With respect to the legal date of an invention made in a foreign country, in *Welsbach Light Co. vs. American Incandescent Light Co.* (C. D., 1900, 227) the court held, that the language of the statute refers to the actual and not the artificial date of an invention; and that the patentee, in a United States patent for an invention previously made by him and patented in a foreign country may, to avoid alleged use in this country by an infringer, before the date of the foreign patent, show the date of the application for the foreign patent, for the purpose of showing the actual date of his invention in a foreign country.

PRIOR PATENTS.

The second of the statutory requirements of novelty is, that the thing which an inventor seeks to protect by a patent, shall not have been patented in this or any foreign country before his invention or discovery thereof.

The term "patented" as employed in the statute means, "made known" (*Rumplf et al. vs. Kohler vs. Krugener*, C. D., 1883, 29; *Howe vs. Morton*, 1 Fisher, 586); and a patent is the medium through which a sovereign power makes known to the world an invention and the patentee's rights with respect thereto.

The public are presumed to take notice of a patent when published, whether issued by this or any foreign country; and to have full knowledge of the invention disclosed thereby. It is evident, therefore, that a later inventor of the same invention would be unable to confer any benefit on the public, hence, could not give the required consideration for a patent. As a matter of fact, the later inventor himself is presumed to have derived his knowledge of the invention from such prior patent, which presumption would negative his claim as an original and first inventor. It has been authoritatively stated that knowledge and the means of knowledge on the part of the public are the same. (1 Web., 718.)

In *Cornish vs. Keene* (1 Web., 501) Tindal, C. J., said:

"Undoubtedly if you could show under the hand of the plaintiff, or anybody's hand, that the secret had been publicly communicated to the world, which was intended to be covered by the subsequent patent, there is an end to that patent; if the world at large had been informed by this specification of the color, fabric and manufacture which is intended to be effected by the subsequent patent, the subsequent patent must fall to the ground."

A patent has been defined as:

"A grant of some privilege, property or authority made by the Government or sovereign of a country to one or more individuals." (*Phillips Pat.*, 1.)

To answer the requirements of the law and to be effective as a bar to a grant for a subsequent invention, the prior patent must have been issued by the Government or sovereign of a country as a public document; it

must have been made accessible to the public by publication before the later invention or discovery; and it must have fully communicated the same invention to the public.

It is the prior patent itself and nothing less that is effective as an anticipation of a subsequent invention. It has been repeatedly held that prior descriptions in the specifications of applications for patents, where the patents have not issued, do not constitute anticipations. (*Graham vs. McCormick*, 21 O. G., 1533; *Parker vs. Stowe*, 14 O. G., 559.) Nor do prior patents, unless complete, negative the novelty of subsequent inventions. An English patent becomes complete only when the specifications have been filed in the office of the Great Seal (*Lorillard vs. Dohan*, 20 O. G., 1587; *Smith vs. Goodyear Dental Vulcanite Co.*, 11 O. G., 246). See, also, *Willimantic Linen Co. vs. Clark Thread Co.*, 4 Bann. and Ard., 134.

A prior patent, to anticipate, must have been accessible to the public. If kept in secret, it confers no benefit on the public and constitutes no bar to a subsequent grant. (*Schoerken vs. Switt & Courtney & Beecher Mfg. Co.*, 19 O. G., 1493.) And the same is true of a private patent granted in a foreign country. (*Brooks vs. Norcross*, 2 Fisher, 661.)

The effective anticipating date of a patent is the date when it actually issued; and when a patent, alone, is set up as a defense, in an infringement suit, evidence will not be admitted to prove that the invention disclosed therein was made prior to said date. (*Bates vs. Coe*, 98 U. S., 31; *General Electric Co. vs. Allis-Chalmers Co.*, 190 F. R., 165.)

In *Johns-Pratt Co. vs. E. H. Freeman Elec. Co.* (201 F. R., 356) the court held:

“This patent notwithstanding it was cited by the Examiner as an anticipation of the invention of the patent in suit as a matter of fact is not found in the prior art. It was issued in January, 1900, which, although prior to the date of the issue of the patent in suit was subsequent to the filing of the application therefor, and consequently Downes can not properly be cited as an anticipation of it.”

But when the question is that of priority between two parties holding patents for the same invention and not one of anticipation, and the defense is made under the fourth subdivision of section 4920 R. S.

“That he (one of the patentees) was not the original and first inventor or discoverer of any material and substantial part of the thing patented.”

it has been held that this fact may be established by any competent proof. (*Sundh Electric Co. vs. Interborough Rapid Transit Co.*, 198 F. R., 94; *Barnes Automatic Sprinkler Co. vs. Walworth Mfg. Co.*, 60 F. R., 605; *Diamond Drill Machine Co. vs. Kelly Bros.*, 120 F. R., 282; *Turner Brass Works vs. Appliance Mfg. Co.*, 203 F. R., 1001.)

There is, however, a well established practice of the Office making the effective anticipating date of a domestic patent, which shows or describes but does not claim the invention claimed by a later inventor, the date of the filing of the application on which the domestic patent issued; and to overcome such patent as a bar, the later inventor must make oath to facts showing the completion of his invention in this country before the filing of said application. (Rule 75; *Ex parte McElroy*, C. D., 1909, 52; *Ex parte Gasser*, C. D., 1880, 94; *Ex parte Hunter*, C. D., 1889, 218; *Ex parte Saunders*, C. D., 1883, 23; *Ex parte Donovan*, C. D., 1890, 109; *Ex parte Eddleblute*, C. D., 1890, 124; and *Millett et al. vs. Duell*, C. D., 1901, 410.)

In most cases an enforcement of the provisions of Rule 75 imposes no very great hardship upon applicants. There are cases, however, in which meritorious inventors who are able to meet all of the requirements of the law are barred by this rule from receiving patents for their inventions. For example, let it be assumed that the domestic patentee acquired his knowledge of the invention, disclosed but not claimed in his patent, in a foreign country; that the later inventor made his invention after the patentee filed his application but before the patent issued, and that the invention had not been known or

used in this country nor patented nor described in this or any foreign country before it was invented by the later inventor. In such a case the later inventor would be clearly entitled to a patent under the law and yet a patent would be denied him under this rule. In considering this phase of the question, we should of course keep in mind the fact that mere knowledge and use of an invention in a foreign country does not bar the right of an independent inventor to a patent in this country (Sec. 4923, R. S.); and the further fact, that knowledge in this country of the use of an invention in a foreign country is not such knowledge or use of an invention in this country as is contemplated by the law. (*Westinghouse Machine Co. vs. General Electric Co. supra.*) This rule, therefore, appears to be inconsistent with the law.

“A foreign patent or other foreign printed publication describing an invention, is no defense to a suit upon a patent of the United States, unless published anterior to the making of the invention or discovery secured by the latter, provided that the American patentee, at the time of making application for his patent, believed himself to be the first inventor or discoverer of the thing patented. He is obliged to make oath to such belief when he applies for his patent; and it will be presumed that such was his belief until the contrary is proven.” (*Elizabeth vs. Pavement Co.*, 97 U. S., 126.) See, also, *Columbus Chain Co. vs. Standard Chain Co.*, 148 F. R., 622.

In Canada an invention is patented so as to be available to the patentee when signed, sealed and registered. (*Bate Refrigerating Co. vs. Gillett*, C. D., 1882, 426.) An English patent is not issued until the great seal is attached, although it may be dated back to an earlier date. (*Holmes Burglar Alarm Telegraph Co. et al. vs. Domestic Telegraph & Telephone Co. et al.*, C. D., 1890, 403.) In *De Ferranti vs. Westinghouse Jr.* (C. D., 1890, 114), Commissioner Mitchell held, that under the British laws (Act of Dec. 31, 1883) an invention can not be said to be “patented” within the meaning of sections 4886 and 4887 of the Revised Statutes, before the seal is finally

attached, the sealing of the patent being the last step preceding its publication as a patent; and that—

“The fact that the specification (British) of the foreign applicant was made accessible to the public in an unpublished form prior to the filing date of an American application is immaterial, because it was not then a printed publication, nor was it a patent.” (See, also, *Bliss vs. Merrill*, C. D., 1888, 182.)

The date of publication of a foreign patent is the constructive date of its publication in this country. (*Rousseau vs. Brown*, D. C., 1903, 101.)

Where a foreign patent on its face purports to have been published on a certain date, the burden of proving that it was not effective as a publication on that date is shifted to the party making the allegation. (*Hummel vs. Tingley*, C. D., 1900, 22.)

As to the sufficiency of disclosure of an invention in an alleged anticipating patent, it is a well settled rule, that an invention patented here is not to be defeated unless the description or drawings of the prior patent contain or exhibit a substantial representation of the patented invention, and are so full, clear and exact as to enable any person skilled in the art or science to which it appertains, without the necessity of making experiments, to practice the invention. (*Hanifen vs. Godshalk Co.*, C. D., 1898, 342; *Kirchberger vs. American Acetylene Burner Co.*, 128 F. R., 599; *Westinghouse Electric Co. vs. Great Northern Ry. Co.*, 88 F. R., 258; *Gordon vs. Warder*, 150 U. S., 47; *Seymour vs. Osborne*, 11 Wall., 516.)

PRIOR PRINTED PUBLICATION.

The third of the statutory requirements of novelty is, that the invention shall not have been described in any printed publication in this or any foreign country before his (the inventor's) invention or discovery thereof.

The essentials of a publication, in order that it may be effective as an anticipation of a subsequent invention,

were stated by the court in *Reeves vs. The Keystone Bridge Co.* (5 Fisher, 456) as follows:

“Section 15 of the Patent Act of 1836—and it has been incorporated in the act of 1870—provides that a patent may be successfully opposed by showing that the thing patented ‘had been described in some public work anterior to the supposed discovery thereof by the patentee’. It is obvious that this provision requires, first, a description of the alleged invention; second, that it shall be contained in a work of public character and intended for the public; and, third, that this work was made accessible to the public by publication before the discovery of the invention by the patentee.”

In *Stead vs. Williams* (2 Web., 137) Tindell, C. J., stated the underlying principle of the law, as follows:

“If the invention has already been made public in England, by a description in a work—whether written or printed—which has been publicly circulated, in such case the patentee is not the first and true inventor within the meaning of the statute whether he has himself borrowed his invention from the public or not; because we think the public can not be precluded from the right of using such information as they were already possessed of at the time the patent was granted.”

Works of a public character are those intended for the dissemination of the ideas of the author throughout the public generally, and not those addressed to particular individuals or to particular classes of individuals. Works of the latter character, even though printed, are not such publications as contemplated by law. It has been held, that business circulars which are sent only to persons engaged or supposed to be engaged in the trade, are not publications, in the sense in which the term is employed in the statute (*Britton vs. White Mfg. Co.*, C. D., 1897, 508; *New Process Fermentation Co. vs. Koch*, C. D., 1884, 421; *Seymour vs. Osborne*, 11 Wall., 516);

and in *Forschner vs. Baumgarten* (35 O. G., 137) the court took the same view with respect to a catalogue. On the other hand, "Crookes' Hand Book of Dyeing and Calico Printing," was held to be a publication such as would defeat claims of a subsequent inventor for an invention therein disclosed. (*In re Schaeffer*, C. D., 1894, 134). In *Ex parte Atterbury*, C. D., 1876, 79, it was held that a "pattern book" was not a printed publication. Acting Commissioner Spear said:

"It is fatal to it that it bears no date, to go no further. On inspection, it appears to be merely a collection of plates, without a word of description and no information is conveyed of any certain character whatever. It can only be the foundation of guesses more or less probable."

An undescribed figure of the drawing of a patent, however, which adequately discloses an applicant's invention, has been held a good and sufficient reference in and of itself alone. (*Ex parte Borden*, C. D., 1884, 9; *Millett vs. Duell*, C. D., 1901, 410.) There are many decisions to the effect that a description in an application for a patent, filed in the Patent Office, is not a publication. (*Northwestern Fire Extinguisher Co. vs. Philadelphia Fire Extinguisher Co.*, 6 O. G., 34.)

In *Cohn vs. U. S. Corset Co.* (6 O. G., 259) it was held that an English provisional specification is a publication when once published; but not unless complete and specific, was, in effect, the ruling in *Goff vs. Stafford* (14 O. G., 748) and *Coburn vs. Schroeder* (22 O. G., 419).

The so-called publications made in the British Official Journal and the German Imperial Gazette concerning applications for patents in these countries and the laying open of such applications to public inspection do not constitute either publications of or patents for the inventions involved. (*Parkin et al. vs. Jenness*, C. D., 1893, 64.)

A prior publication, in order to be effective as an anticipation must not only be of a public character but must have been made accessible to the public. In *Cottier vs. Stimson* (20 F. R., 906) the court said:

"But something besides printing is required. The statute goes upon the theory that the work

has been made accessible to the public, and that the invention has been thereby given to the public and is no longer patentable to any one. Publication means put into general circulation or on sale where the work is accessible to the 'public.'

A journal devoted to a special science, printed in German, and deposited in the library of the Patent Office and in the library of the Institute of Civil Engineers and accessible to them, although proved to have been read by but one person, was held to be a sufficient publication. (*United Telephone Co. vs. Harrison, Cox-Walker & Co.*, L. R., 21 Ch., 720.)

And the publication must have been made accessible to the public prior to the date of the later invention. (*Elizabeth vs. Paving Co.*, 97 U. S., 126; *Bartholomew vs. Sawyer*, 1 Fisher, 516.)

As to the sufficiency of disclosure in a prior publication of the invention sought to be anticipated, Mr. Justice Clifford said:

“Patented inventions can not be superseded by the mere introduction of a foreign publication of the kind, though of prior date, unless the description and drawings contain and exhibit a substantial representation of the patented improvement, in such full, clear, and exact terms as to enable any person skilled in the art or science to which it appertains, to make, construct, and practice the invention, to the same practical extent as they would be enabled to do if the information was derived from a prior patent. Mere vague and general representations will not support such a defense, as the knowledge supposed to be derived from the publication must be sufficient to enable those skilled in the art and science to understand the nature and operation of the invention and to carry it into practical use. Whatever may be the particular circumstances under which the publication takes place, the account published, to be of any effect, to support such a defense must be an account of a complete and

operative invention capable of being put into practical operation." (Seymour *vs.* Osborne, 11 Wall., 516.) See also, Westinghouse Co. *vs.* Saranac, 108 F. R., 221; Downtown *vs.* Yaeger, 108 U. S., 466; Marconi *vs.* Shoemaker, C. D., 1907, 392.

The words, "skilled in the art" employed in the statute and in the decisions, include careful workmen who are skillful in the particular line of business in which they are engaged. The law does not warrant a construction of those words which includes only persons of high scientific attainments. (Pupin *vs.* Hutin *vs.* Stone, C. D., 1902 269.)

The description in a prior foreign publication must be such as to show that the article described in the patent in suit can be certainly arrived at by following the description, without the assistance of local prior knowledge or a local prior use in the foreign country where the description is published. (Badische *vs.* Kalle, 104 U. S., 802.)

A prior description in an encyclopedia of an improvement claimed unsupported by any proof that it was operative, held not sufficient to defeat a patent. (Seymour *vs.* McCormick, 60 U. S., 96.)

BURDEN OF PROOF.

The rule of evidence, in suits for infringement, was stated in Lalance & Grosjean Mfg. Co. *vs.* Habermann Mfg. Co. (C. D., 1893, 167) as follows:

"He who alleges prior use must establish it by the same high class of testimony which a prosecuting attorney is required to produce in a criminal cause. He holds the affirmative of that issue and must prove it beyond a reasonable doubt. If the evidence is susceptible of two interpretations, the one sustaining the other destroying the patent, the court must accept the former."

But where the defense establishes a case of anticipation, the burden of proof is transferred to the com-

plainant, who must furnish the court with convincing proof that the anticipation was anticipated by him in making the invention. (New England Motor Co. *vs.* Sturtevant Co., 150 F. R., 131; Consolidated Ry. Electric Co. *vs.* Adams & Westlake Co., 161 F. R., 343.) Such proof must establish a well-defined perfection of the invention anterior to the date of the anticipation, keeping in view the rule, that "a conception of the mind is not an invention until represented in some physical form." "Expression of the means of an alleged invention, in a drawing or sketch, is frequently the best attainable evidence of the needful 'representation in physical form,' and may rightly be accepted as satisfactory proof of such fact, when fairly authenticated, definite, and reasonable under all the circumstances." (Consolidated Ry. Electric Co. *vs.* Adams & Westlake Co., *supra.*)

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Mechanical Equivalents

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WASHINGTON, D. C.
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Mechanical Equivalents

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It may be said without doubt that in general the commercialization of inventions and of patent rights has done much to increase the value of patents and to standardize the values of patentable inventions.

The individual inventor of one or more inventions which he may have perfected, either by his genius or by his patience and perseverance, having secured protection by taking out patents on his inventions, seeks to interest capital in the development of his ideas. If the invention appears to be worthy of consideration, the services of a patent attorney are secured in order to determine the probable validity of the patents and the scope of the equivalents which they may be held to cover. If his patents are taken up for investigation by a corporation, the Mechanical Engineer first investigates the operative-ness and desirability of the inventions in connection with the particular art under consideration. Subsequently the attorney investigates the patents for validity and probable scope of equivalents.

Again, suits for infringement may be brought upon the patents and again the attorney investigates the patents for validity and probable range of equivalents. It is, therefore, apparent that the scope of the mechanical equivalents covered by a patent is very important at every stage of the investigation.

HISTORY.

The doctrine of mechanical equivalents is one which has been in the process of development from an early date. The statute does not require equivalents to be stated in the specifications and claims of patents, nor

does it give protection for equivalents *as such* in its terms. The Rules of Practice make no mention of the use of the doctrine of equivalents for the guidance of the Patent Office in determining the question of patentability.

The patent act of 1790 made no requirement that the invention should be particularly claimed. It did require, however, that the "specification shall be so particular, and said model so exact, as not only to distinguish the invention or discovery from other things before known and used, but also to enable a workman or other person skilled in the art of manufacture, whereof it is a branch, or wherewith it may be nearly connected, to make, construct, or use the same to the end that the public may have the full benefit thereof, after the expiration of the patent term."

The act of 1793 required that the inventor should file in the office of the Secretary of State "a written description of his invention, and of the manner of using, or process of compounding the same, in such full, clear and exact terms, as to distinguish the same from all other things before known, and to enable any person skilled in the art or science of which it is a branch, or with which it is most nearly connected, to make, compound and use the same."

In the act of 1836 it was required that the inventor "shall particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery." This appears to be the first act in which a distinct claim was required.

The Consolidated Patent Act of 1870 (Sect. 26) contained the requirement similar to that of Section 4888, of the Revised Statutes, to the effect that the inventor "shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery." The present requirements of Rule 37 first appeared in the eighth Revised Edition of the Rules of Practice, November 16, 1885.

Nothing indicative of an equivalent had been referred to in statutes or rules.

Walker in his first edition (1883) says: that "to define an equivalent is at present a weighty and difficult

undertaking. It is weighty because many rights of property now depend, and always will depend, upon the definition. It is difficult because the deliverances of the Supreme Court upon the subject are inharmonious, and because none of those deliverances is accompanied by elementary reasoning on the merits of the question."

Robinson (Vol. 1, Sect. 245) says in effect, that the rules which govern the immaterial diversities of inventions, taken together, constitute the "Doctrine of Equivalents."

As a uniform rule "one who claims and secures a patent for a new machine or combination thereby necessarily claims and secures a patent for every mechanical equivalent for that device or combination."

Kinlock Telephone Co. *vs.* Western Electric Co.
(113 F., 652).

DEFINITION.

A general definition of the term "mechanical equivalents" must, therefore, be deduced from the interpretations which have been given to the term in the decided cases.

Age of the equivalent element. In a number of early decisions it was held that in order to be an equivalent the element must have been known at the date of the patent. The doctrine was first announced by Justice Clifford and was held in the cases of *Seymour vs. Osborn* (11 Wall., 556); *Gould vs. Rees* (15 Wall., 187); *Gill vs. Wells* (22 Wall., 31); *Imhaeuser vs. Buerk* (17 O. C., 795); and other decisions. The cases of *Mason vs. Graham* (23 Wall., 275), and *Potter vs. Stewart* (18 Blatch., 563) (Blatchford, J.) among the early decisions held the opposite view.

This element of age although reiterated in a number of decisions, and stated by Robinson as being the only logical and scientific test, appears to have been almost universally ignored in reaching the conclusions of the courts.

When the equivalent element becomes known through the gradual development of human information the inventor would seem to be as much entitled to a portion

of that development in his patent as that the public should be entitled to the entire benefit thereof, eliminating the patent from consideration. This proposition would appear to be in accord with the principle that an inventor is entitled to all the uses to which his invention may be put no matter whether he knew of those uses or not. In *Oehric vs. Horstmann* (131 F., 478) and *General Electric Co. vs. Winsted Gas Co.* (110 F., 963), it was held that unless the equivalents are specifically disclaimed "all equivalents are covered by a patent whether the inventor thought of them or not." Also in *Vrooman vs. Penhollow* (179 F., 296) a patentee was held entitled to equivalents although they were not described in the specification.

The later decisions more distinctly negative the requirement of age as to the infringing element. Among these are:

- McCormick Harvester Co. vs. Aultman (69 F., 386).
- Gould Coupler Co. vs. Pratt (70 F., 627).
- Read Holiday & Sons vs. Schmilze Berge (78 F., 496).
- Edison El. L. Co. vs. Boston Incandescent Lamp Co. (69 O. G.), 245.

There are, however, a few later decisions which mention age as a condition precedent to constituting a proper equivalent. Among these is the case of *Denning Co. vs. American Steel Co.* (169 F., 793) referring to the ingredients of a compound.

"It is, therefore, safe," says Walker (4th Edition), "to define an equivalent as a thing which performs the same function and performs that function in substantially the same manner as the thing of which it is alleged to be an equivalent" (Sect. 354).

To this Robinson adds the requirement that the substitution of the equivalent must not in any manner vary the idea of means. *Hobbie vs. Smith* (27 F., 656); *Adams vs. Bellair Stamping Co.* (28 F., 360); *Brighton vs. Wilson* (18 F., 378); *Dey Time Register Co. vs. Syracuse Time Register Co.* (152 F., 440). That it must perform the same function is set forth in *Piper vs. Shedd et al.* (35 O. G., 256).

Turning now to some of the leading decisions in which definitions are discussed we find the following:

An equivalent in the law of patents is defined to be "an act or substance which is known in the arts as a proper substitute for some other act or substance, employed already as an element in an invention, whose substitution for that other act or substance does not in any manner vary the idea of means. It possesses three characteristics:

(1) It must be capable of performing the same office in the invention as the act or substance whose place it supplies.

(2) It must relate to the form of embodiment alone, and not affect in any degree the idea of means.

(3) It must have been known in the arts, at the date of the patent, as endowed with this capability." (1 Rob. Pat., Sec. 247). *Duff Mfg. Co. vs. Forgie* (59 F., 772).

This third characteristic as to the age of the equivalent has been discussed above.

"A mechanical equivalent which may be substituted for an omitted mechanical element in a combination claim is one that performs the same function by applying the same force to the same object through the same means and mode of application."

Hardison vs. Brinkman (156 F., 962).

The term "equivalents" has two meanings as used in patent cases. The one relates to the results that are produced, and the other to the mechanism by which those results are produced.

Johnson vs. Root (1 Fisher, 351).

The equivalency of construction relates in mechanics to similarity of means, functions and results.

Eames vs. Worcester Pol. Inst. (123 F., 67).

Mechanical devices are equivalents when skilful and experienced workmen know that one will produce the same result as another.

Johnson vs. Root (1 Fisher, 351), and *May vs. Fond du Lac* (27 F., 691).

“The substantial equivalent of a thing is, in the sense of the patent law, the same as the thing itself. Two devices which perform the same function in substantially the same way, and accomplish substantially the same result, are, therefore, the same, though they may differ in name or form.”

Machine Co. *vs.* Murphy (97 U. S., 120).

The term “equivalent” means “equally good” when it refers to the ingredients of compositions of matter.

Tyler *vs.* Boston (7 Wallace, 330).

Primary and secondary inventions. In the various texts books it has been attempted in applying the doctrine of equivalents, to draw a line of distinction between primary or pioneer patents and secondary or improvement patents.

Thus: A *primary invention* is one which performs a function never performed by any earlier invention: Morley *vs.* Lancaster (129 U. S., 373); Celluloid *vs.* Mfg. Co. (44 F., 86); Norton *vs.* Jensen (49 F., 862); Nat'l. Reg. Co. *vs.* Am. R. Co. (53 F., 372); Boston L. Mach. Co. *vs.* Woodward (53 F., 481).

A *secondary invention* is one which performs a function previously performed by some earlier invention, but which performs that function in a substantially different way from any that precede it: Butz Co. *vs.* El. Co. (36 F., 192); Writing Mach. Co. *vs.* Book Ty. Co. (108 F., 629).

No clear line, however, has been found to exist between primary and secondary inventions.

To be entitled to the doctrine of equivalents, it is not essential that the patent shall be for a pioneer invention in the broad sense of that term. If the invention is one that marks a decided step in the art, and has proved of value to the public, the patentee will be entitled to the benefit of the rule of equivalents, though not in so liberal a degree as if his invention were of a primary character:

Bundy Mfg. Co. *vs.* Detroit T. Reg. Co. (94 F., 524).

But, when an invention is not a pioneer invention, the inventor is held to a rigid construction of his claims.

Wright *vs.* Yuengling (155 U. S., 47).

In the case of Kokomo Fence Mach. Co. *vs.* Kitzelman (189 U. S., 8), it was attempted to decide the question as to whether the invention was a pioneer or a secondary one, in a suit on several patents covering wire fabric machines.

The Circuit Court held the patents to cover *secondary inventions* and found non-infringement for the defendants. The Circuit Court of Appeals held one of the patents in suit to cover a *primary invention*, and found it to be infringed by the defendant's machine. The Supreme Court agreed with the Circuit Court, finding that the invention was a secondary one and the defendants not entitled to recover.

Many decisions enunciate the proposition that the doctrine applies equally to all inventions.

The term "mechanical equivalent" has a broad and generous signification in the interpretation of a pioneer patent, a very narrow and restricted meaning in the construction of a patent for a slight improvement, and in the interpretation of patents for the great mass of inventions which fall between these extremes, its meaning is proportioned to the advance which the invention under consideration evidences.

Mallon *vs.* Wm. C. Gregg Co. (137 F., 68).

PRIMARY INVENTIONS ENTITLED TO A BROAD RANGE OF EQUIVALENTS.

To sustain a claim of infringement of a patented machine, three things must be found: First, identity of result; second, identity of means; third, identity of operation. The fact that an invention is of a primary character does not entitle the patentee to all means for accomplishing the same result.

Am. Can Co. *vs.* H. S. Canning Co. (137 F., 86).

The patentee of an invention which, although for an improvement only, is of undoubted utility and constitutes a marked advance in the art, is entitled to the benefit of the doctrine of equivalents commensurate with the invention disclosed.

Columbia Wire Co. vs. Kokomo S. & W. Co.
(143 F., 116).

The decisions that an element included in a claim can not be regarded as immaterial were not intended to exclude from consideration the doctrine of mechanical equivalents. An element can not be held to be immaterial where there is no corresponding element in the other party's claim; but where there is a corresponding element the question whether they are mechanical equivalents must be determined.

Ex parte Thompson (98 O. C., 227).

An improver may be a pioneer in a limited field.

Howe Mach. Co. vs. Coffield Motor Washer Co.
(197 F., 541).

To what liberality of construction these claims are entitled depends to a certain extent upon the character of the invention, and whether it is what is termed in ordinary parlance a "pioneer." This word, although used somewhat loosely, is commonly understood to denote a patent covering a function never before performed, a wholly novel device, or one of such novelty and importance as to mark a distinct step in the progress of the art, as distinguished from a mere improvement or perfection of what had gone before. Most conspicuous examples of such patents are: The one to Howe for the sewing machine; to Morse for the electric telegraph; and to Bell of the telephone.

Westinghouse vs. Boyden Power Brake Co. (170 U. S., 537).

The Welsbach patent No. 837,017, for "a pyrophoric alloy containing cerium alloyed with iron, as and for the purpose described." *Held*, to cover a pioneer invention

and entitled to that liberal application of the doctrine of equivalents, which is usually accorded to such patents.

Freibacher Chemische Werke Gesellschaft mit beschränkter Haftung vs. The Roessler & Hasslacher Chemical Co. (209 O. G., 1689).

The words "substantially as described" in a claim do not limit the patentee to the exact mechanism described nor deprive him of the benefit of rule of equivalents to the same extent as if they were absent.

National Tube Co. vs. Mark et al. (216 F., 507).

IMPROVEMENT PATENTS ENTITLED TO A MORE LIMITED RANGE OF EQUIVALENTS.

"A patentee who is not a pioneer, but a mechanical improver, though the first to achieve commercial success is not entitled to treat as equivalents distinct mechanical improvements of others."

Mayo K. M. & N. Co. vs. Jencks (121 F., 110).

A patentee whose invention is meritorious, although he is not a pioneer, is entitled to a reasonable range of equivalents measured by the advance he has made over older machines.

Dowagiac Mfg. Co. vs. Minnesota M. Plow Co. (118 F., 136).

A patentee is not to be denied protection commensurate with the scope of his actual and distinctly described invention by wholly excluding him from the benefit of the doctrine of equivalents, even as against one who has made only such changes as are palpably colorable and of such character as to show that they were studied evasions of the particular devices described in the patent.

Lepper et al. vs. Randall (113 F., 627).

A patentee of an improvement on a prior combination by adding thereto a single new element is not entitled to claim equivalents to the same extent as the patentee of the original combination.

Am. Stoker Co. vs. Underfeed Stoker Co. (182 F., 642).

When the invention of a patent is not a pioneer invention, the inventor is held to a rigid construction of his claims, and is not entitled to any considerable range of equivalents: and when, in a patent for a mere improvement, which in view of the prior art is extremely narrow, he has limited his claims by specific words to the specific form of device or element, he is bound thereby.

Sharp vs. Bellinger et al. (168 F., 296).

PATENTS SHOULD BE LIMITED TO WHAT IS CLAIMED.

On the other hand the claims of a patent should be limited to the thing claimed. The claim is the written definition of the character and scope of the thing protected. Robinson says (Vol. II, Sec. 505):

“The courts will not go into the history of the art to ascertain what he has really discovered and what he might have patented if he had chosen but will take him at his word and protect him according to the terms in which he has himself demanded such protection.”

The statutory prerequisite to the claim has already been referred to. The applicant must—

“particularly point out and distinctly claim the part, improvement, or combination, which he claims as his invention or discovery.”

It is clearly necessary that the inventor afford information to the public as to precisely what he regards the limitations of his monopoly, otherwise the public would have no means of knowing the extent of existing monopolies, and from what portion of the field of invention the

inventor should exclude himself in the practice of his art.

The Supreme Court in the case of *Pope Mfg. Co. vs. Gormully* (144 U. S., 224) said:

“The rights of the public to use that which can not be lawfully monopolized is just as important, and should be as jealously guarded, as the rights of a real inventor.”

Among other decisions may be cited the following:

“Where the actual invention, described in the specification is larger than the claims of the patent, patentee, in suit for infringement, is limited to what is specified in the claims.”

Bates vs. Coe (98 U. S., 38).

“Courts will go far to save a patent for a meritorious invention, but can not reconstruct claims and disregard their very terms, and add or subtract material words not found therein but necessary if the true invention is to be covered.”

Sharp vs. Bellinger et al. (168 F., 295).

“The courts are bound by the language chosen by the inventor in framing his claims, and they have neither the right nor the power to enlarge a patent beyond the scope of the claims, even though the patentee may have been entitled to something more than the words he has chosen to use will include.”

Seaburg vs. Johnson (76 F., 456).

A decision often quoted is:

“The claim of the inventor in letters patent must be construed according to its terms, and when its import is plain, resort can not be had to the context for the purpose of enlarging it.

“Some persons seem to suppose that a claim in a patent is like a nose of wax that may be turned and twisted in any direction by merely referring to the specification so as to make it include something more than or something different from what its words express.”

“The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law to construe it in a manner different from the plain import of its terms.” See, *Keystone Bridge Co. vs. Phoenix Iron Co.* (95 U. S., 274); *James vs. Campbell* (104 U. S., 356).

White vs. Dunbar (119 U. S., 47).

From the principles laid down in these decisions it is not seen how the doctrine of equivalents can be applied otherwise than both forwards and backwards. The claim is to be liberally construed but not so as to read anything into it or out of it to make it different from what a fair interpretation of its terms demand. The same tests should be applied in the determination of the question of anticipation as are applied to find infringement. It is a familiar rule, and often expressed, that a construction which would infringe if later would anticipate if earlier.

SCHROEDER PATENT—CRITICISM—PROPOSED LEGISLATION.

The efforts of the courts, from time to time, in giving construction upon relatively broad patents, and in applying the doctrine of mechanical equivalents with such force as to make a finding for a pioneer invention, has called forth much adverse criticism on the part of the public. It has been alleged that the doctrine of equivalents has been used as a veil under which the courts have decided cases at random and without the application of the equitable principles laid down in the decisions noted.

One instance of a case calling forth such adverse criticism is found in the washing machine art. The patent to Schroeder 535,465, March 12, 1895, was construed in the case of *Benbow-Brammer Mfg. Co. vs. Straus* (166 F., 114). This patent discloses a slidable cylinder mounted on a vertical shaft to which shaft at the lower end is attached the clothes stirrer. A segmental

rack on the cylinder is engaged by a pinion mounted on the inner end of a driving shaft, to the outer end of which is attached the crank-handle or fly-wheel. The claim sued on called for a cylinder placed upon the operating shaft and having a *sliding movement thereon*.

"The main difference between the two is that in Schroeder's machine the reciprocating motion is produced by the up and down movement of the rack and in the defendant's by the up and down movement of the pinion. This change is accomplished by substituting for the driving shaft of the claim a driving shaft which as the defendant's brief asserts, is well known in mechanics as a 'floating' shaft, and making the necessary mechanical changes incident to the substitution."

Washing machines having the general combination of parts were old prior to the date of the application for the Schroeder patent. The decision of the court, therefore, related to the particular form of mechanism for producing the reciprocatory rotary motion of the clothes stirrer.

Under the above state of facts it has been alleged that the Schroeder patent should not have been enlarged beyond the scope of its claims, and that the doctrine of mechanical equivalents should not have been used as a "mask" under which the court should hold that a claim in the patent which, by its *terms* is limited to a *slidable cylinder*, is infringed by a device embodying a *non-slidable cylinder*.

In view of the decision in the case of Benbow-Brammer Mfg. Co. *vs.* Straus, *supra*, and other cases of like import, the following statute was proposed for enactment, by Hugh K. Wagner of St. Louis, Mo.:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that it shall be unlawful for any court in construing any claim of letters-patent for an invention to hold, under the doctrine of mechanical equivalents or otherwise, as an infringement thereof anything on which the terms of such claim understood according to their plain import will not read."

THE COMBINATION.

In applying the doctrine of equivalents, a distinction is made between inventions which are specific devices and inventions which are combinations.

In specific devices, the range of equivalents recognized is much wider than in combinations. In the latter an element is not an equivalent, unless it is substantially the same thing as the patentee has described, operating in the same way.

Wells vs. Curtis (66 F., 318) C. C. A., 6th C.

The fact that in a combination all the elements are old does not preclude the benefit of equivalents.

Singer Co. vs. Cramer (109 F., 652).

Any substitution in the essential elements of a combination which affects either the means or function of the single element passes beyond the region of equivalents into the sphere of substantive invention (1 Rob., 347).

The doctrine of mechanical equivalents is governed by the same rules and has the same application in a case in which the infringement of a patent for a combination is in question as in cases where the issues are over the infringement of patents for machines or compositions of matter.

Ottumwa Box Car Loader Co. vs. Christy Box Car Loader Co. (215 F., 362).

The Substitution of Equivalents in General Combinations.

This question relates more definitely to secondary inventions and improvement patents since such inventions and patents bring out more specifically applicant's exact combinations and arrangements of elements in connection with general elements of some particular art.

Under this head may be classified the famous McNeil decisions (100 O. G., 1976, 100 O. G., 2178) undoubtedly used to excess:

“The combination of a trimmer with one type of stitch-forming mechanism being old, there is no

invention in combining that trimmer with another stitch-forming mechanism whether that stitch-forming mechanism is new or old."

This decision is used in variation with *In re Hawley* (121 O. G., 691) and *In re Ratican* (162 O. G., 540). The latter held that—

"the inventor is certainly not entitled to a patent on a new combination merely because he has improved a single element of that combination."

Where the new combination involves one invention, and the improved element covers an invention of a second party, not structurally dependent, no third patent should be granted that would prevent these independent inventors from bringing their separate inventions together.

On the other hand, in the early state of an art, the substitution of equivalents in general combinations may amount to invention. The decisions in the case of the Selden patent was such a holding, the steam engine being held not to be the equivalent of the gas engine in the combination.

El. Vehicle Co. vs. C. A. Duerr & Co. (172 F., 923).

Also, if the new element co-acts with the other elements in a different manner than in the old combination, *In re McNeil* does not apply.

Ex parte Mumford (206 O. G., 878).

DOUBLE USE.

The revolving rack for billiard cues was held void on the ground of double use. *St. Germain vs. Brunswiék* (51 O. G., 1129). In this case the revolving dining table and the bottle caster were held to be equivalent structures for bringing around the desired article for use.

In the case of *The Penn. R. R. Co. vs. The Loco. Engine Safety Truck Co.* (27 O. G., 207), and in many other cases, it has been held that—

"the application of an old process or machine to a similar or analogous subject, with no change in the

manner of applying it, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated."

In this case a form of truck already in use on railroad cars was held to have its equivalent in a similar truck for use as the forward truck of a locomotive engine.

Many other cases of similar import might be cited.

ABANDONMENT.

The mere fact that a claim has been rejected and amended does not operate as an abandonment of equivalent elements.

Reece Button Hole Meeh. Co. vs. Globe Co. (61 F., 958).

Where three equivalents are described and but one of them is claimed, applicant does not thereby *abandon* the other two ways.

Burdon Wire & Supply Co. vs. Williams (128 F., 927).

The mention of an equivalent form or method to that stated in the claim does not *abandon* the equivalent.

Thompson-Houston El. Co. vs. Ohio Brass Co. (130 F., 542).

DESIGNS.

"Design patents cover appearances only."

Royal Metal Mfg. Co. vs. Art Metal Works (128 F., 128).

"The true test of infringement of a design patent is laid down by the Supreme Court in *Gorham Co. vs. White* (14 Wall., 528) as follows:

"If, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer,

inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other."

N. Y. Belting & Packing Co. vs. N. J. Car Spring & Rubber Co. (53 F., 810).

Macbeth et al. vs. Gillinder et al. (54 F., 171).

Kruttshmitt vs. Simmons (118 F., 851).

MISCELLANEOUS.

In *Ex parte Dolph* (39 O. G., 239) it was held that the words "or equivalent devices" should not be employed in a claim unless such equivalent devices are clearly described in the specification. Since equivalent devices are always regarded as being covered by a claim, these words are unnecessary in any case and in most cases render the claim indefinite.

Where reference letters are used on drawings the same letters should not be used to designate equivalent elements. The use of letters provided with exponents was suggested in *Ex parte Cook* (51 O. G., 1620).

The application of the doctrine of equivalents by the Examiners to the work of the office, in addition to a consideration of the rules as enunciated in the definitions depends to some extent upon the training of the individual Examiner. The mechanical engineer who has had the benefit of training in shop work and design will find it more difficult to see invention in differences of form, size, capacity, and proportions and in arrangements of parts than the Examiner who has not had the benefit of such training. The arguments and demonstrations of the attorneys in such cases, are, as a rule, less easily convincing. Likewise the skilled chemist will appreciate more quickly the equivalency of ingredients in any given compound than one not skilled in that profession.

"A mere mechanical substitute for a thing must be regarded as the thing itself."

The question whether the thing is an equivalent or not is a question of *fact* to be determined by the evidence.

"Whether the defendant has used substantially the same means, or, in other words, mechanical

equivalents, to accomplish the same result, is a question for the jury to determine.”

“The testimony of a mechanical expert, in a suit for infringement, must be tried by the same tests that are applied to the evidence of other witnesses; and it must receive just such credit and weight as it appears to be entitled to from all the circumstances, and no more.”

May *vs.* County of Fond du Lac (27 F., 691).

In applying references in anticipation of claims, therefore, the Examiner should be guided by the same judicial considerations in favor of the public as are given to the protection of alleged inventions in the claims allowed, at the same time bearing in mind that in the presence of a reasonable doubt the benefit thereof should be given to the inventor.

In order to give a clearer understanding of the application of equivalents, and to express in concrete form the scope which has been given to the doctrine by the Federal courts, I have made a selection of a few *specific cases* and arranged them somewhat in the form of a digest. The selection of these cases has been made with a view to clear illustration of the application of the doctrine.

DIGEST OF SPECIFIC CASES.

Elements.

Cams.

In a sewing machine combination:

“While a *cam* and a *wedge* are regarded as plain equivalents (Burr *vs.* Duryee, 1 Wall., 531), yet the use of *two cams* in the defendant’s device, in place of *two inclines* or *wedges* in the plaintiff’s patent, are *not* to be regarded as the substitution of equivalents, considering their different modes of operation in connection with the rods as arranged in the defendant’s machine.”

Gray *vs.* Bangs (31 F., 342).

Bearings.

In a journal bearing for stone crushers, a *cylindrical journal-bearing* provided with a *conical journal obliquely placed*, so that the surfaces of the two have a line of contact, is infringed by the equivalent structure of a *conical bearing* and a *cylindrical journal* similarly placed. The first named bearing was held patentable over a ball and socket bearing in which there is but a point of contact.

Gates Iron Works *vs.* Fraser & Chalmers (79 O. G., 2015).

In a treadle for sewing machines, *knife edge trunnion bearings* are the equivalent of *center point bearings* consisting of pointed screws engaging in holes countersunk in the treadle.

Singer Mfg. Co. *vs.* Cramer (97 O. G., 552).

In a hair clipping machine, a *ball bearing* is the equivalent of a *roller bearing* as an antifriction device between the reciprocating cutter plates and the cap. Grass and grain cutters were considered to be cutters for an equivalent use.

Coats *vs.* Boker (119 F., 358).

Fastening Devices.

The use of a *screw* to fasten together two parts, instead of a *rivet*, for the purpose of making them more readily detachable, is but the substitution of a well-known mechanical equivalent.

The rivet made a "permanent structure" of the hook with the plate of the corn-husker, while the screw rendered the parts detachable.

Boss Mfg. Co. *vs.* Thomas (162 O. G., 1183).

The construction of a school desk or seat having slats keyed to the frames with *square keys* is *not* a reduction to practice of an invention for fastening the slats to the frames with *dovetail keys*. However, the *dovetail key* is the equivalent of a *dowel*:

Mallett *vs.* Cogger (16 O. G., 45).

Clearing.

In a knitting machine, a *pin and slot connection* is the equivalent of a *geared connection* between the crank shaft and the second shaft.

McMichael & Wildman Mfg. Co. vs. Ruth et al.
(128 F., 706).

In actuating mechanism for door bells a *half wheel or sector gear* is the equivalent of a *pinion*.

New Departure Mfg. Co. vs. Sargent & Co. (127 F., 152).

A *sprocket chain drive* is the equivalent of a *belt drive* as a means for propelling a vehicle.

Sheffield Car Co. vs. Buda Foundry & Mfg. Co.
(177 F., 713).

A driven friction pulley in engagement with the *side edges of a driving pulley* is not the equivalent of a *driven pulley* in engagement with *periphery of the driving pulley*.

Motsinger Device Mfg. Co. vs. Hendricks Novelty Co. (149 F., 995).

Levers.

In the cornplanter cases, a *handle* for moving the connecting rod backward and forward between the hoppers was held the equivalent of a *lever* for performing the same functions.

Brown vs. Guild (23 Wallace, 181).

In safety switches for railroad drawbridges: "A rod is the known equivalent of an endless chain where it can be used for the same purpose and effect."

Spain et al. vs. Gamble et al. (Fed Cases, 13199).

In a device for actuating the movable jaw of a stone crusher, a *column of water* moved by a pump plunger was held to be the equivalent of a *mechanical lever mechanism* for actuating the movable jaw.

Blake vs. Robertson (94 U. S., 728).

Pulleys.

In a mounting for belt pulleys a *pulley revolving on a shaft* is the equivalent of a *pulley having trunnions revolving in bearings at the ends*.

Robins Conveying Belt Co. *vs.* Am. Road Mach. Co., (142 F., 221).

Robins Conveying Belt Co. *vs.* Am. Road Mach. Co. (145 F., 923).

Racks and Pinions.

In a mechanism for shifting car seats, a *rack and pinion movement* for shifting the seat held *not* the equivalent of downwardly extending *pivoted arms* for the same purpose.

Hale & Kilburn Mfg. Co. *vs.* Oneonta et al. (129 F., 598).

Springs and Weights.

In a weighted vent valve, a *weight* is the equivalent of a *spring*. The interchangeable use of weights and springs is stated as being the stock illustration for equivalents.

Kenney Mfg. Co. *vs.* J. L. Mott Iron Works (137 F., 431).

In the fountain pen combination the *spring* was found to be more than the equivalent of a *weight*. The spring acted more quickly in the direction of the point of the pen without regard to its perpendicularity.

Cross *vs.* Mackinnon (11 F., 601).

“A *weight* and a *spring*, generally speaking, are mechanical equivalents.” *Lever*s and *spring*s are generally equivalents. Interchangeability is an important test in determining infringement. Miller *vs.* Eagle Mfg. Co. (151 U. S., 186). A *spiral spring* is generally an equivalent for a *flat spring*. United States *vs.* Berdan Firearms Co. (156 U. S., 552).

L. J. Mueller Furnace Co. *vs.* Groesdchel (166 F., 917).

Miscellaneous.

In a circuit breaker a spring substituted for a pivot where it performs the same movement and does the same work is an equivalent.

“I think it clear that a spring is as much of an equivalent for a pivot as is a rod for an endless chain, or a spring for a weight. The question is do they produce the same effect, perform the same function?”

Westinghouse El. & Mfg. Co. *vs.* Condit El. Mfg. Co. (159 F., 144).

Also, on appeal it was held that “the spring must be treated as an equivalent for the pivot” (167 F., 546).

Ropes or strings either saturated with oil or not are the equivalents of wires or chains having fusible links to be ruptured in case of fire. The substitution of one for the other was held to be purely mechanical, such as would occur to any ordinary mechanic.

Voightman *vs.* Weis Ridge Cornice Co. (133 F., 298).

In a circuit closing apparatus, a *weight* is the equivalent of a solenoid, as an actuating mechanism for a lever.

Reis et al. *vs.* Barth Mfg. Co. (136 F., 850).

In a device for supporting and delivering paper for wrapping and binding purposes, the *serrated edge* is the mechanical equivalent for the knife and the *sponge* is the equivalent for the moistening roller.

Natl. Binding Mach. Co. *vs.* J. D. McLaurin Co. (186 F., 992).

Articles of Manufacture.

A device for admitting air to the lower part of a flame of a lamp through many small holes is a mechanical equivalent of one admitting it through larger apertures, one on each side of the wick chamber.

Ex parte Dietz (Fed. Cases No. 3902).

In a syringe, the *bulb placed above the axial line* of the delivery and discharge is the equivalent of the *bulb placed directly in axial line* of the tubes.

Morey *vs.* Lockwood (8 Wallace, 230).

In golf balls having rubber cores, a *rubber thread* wound under high tension is the equivalent of a *rubber band* wound under tension. The term "rubber thread" held not limited to a compound cord made by twisting together two or more strands, but includes any strip of rubber of whatever shape.

Haskell Golf Ball Co. *vs.* Perfect Golf Ball Co. (143 F., 128).

Machines.

In a coffee-mill structure, a hopper and *grinding-shell* formed in a single piece is the equivalent of a structure in which said parts are made *separate* and *securely* and firmly united by *flanges, lugs* and *pins*.

Strobridge *vs.* Lindsay, Sterritt & Co. (6 F., 510).

In a reheating furnace for glassware, a *horizontally* revolving table supporting vertical rods and carrying the articles to be heated, and which by its revolution, carries them through the furnace in the arc of a circle, does not have its equivalent in a mechanism in which the carrier is an *endless chain* moving through the furnace in a straight line, and mounted on a movable frame so that the whole may be withdrawn from the furnace.

Natl. Glass Co. *vs.* U. S. Glass Co. (147 F., 254).

Machine Motors.

An *air motor* held not the equivalent of a *water motor* where the advantage of the air motor was not foreseen.

Weld Mfg. Co. *vs.* Johnson Service Co. (147 F., 234).

The coupling of a motor that will run any kind of a machine, to a machine that will run with any kind of a

motor, is not invention. A *pneumatic motor* was held to be the equivalent of an *electric motor* in the operation of automatic dampers. "We can not," says the court, "put the claims in the so-called 'happy thought' class. If in truth a burst of inspiration points to the running of A's machine with B's engine, nevertheless a monopoly can not be based merely on bringing the two together."

Natl. Regulator Co. *vs.* Powers Regulator Co.
(160 F., 460).

A *constant volume gas engine* is not the equivalent of a *constant pressure engine*, under a patent entitled to a fair and reasonable, but not a broad range of equivalents.

The Otto four-cycle engine not the equivalent of the Brayton or Selden two-cycle engine in the combination.

Columbia Motor Car Co. *vs.* C. A. Duerr & Co.
(184 F., 893).

In electric motor regulation, an *inductive resistance* coil in which a resistance is due to counter electromotive force induced within the coil is the equivalent of a *coil* which causes only *natural* or *ohmic resistance*, the two kinds of resistance coils being well known.

Pieper et al. *vs.* Electro Dental Mfg. Co. (156 F., 672).

In an alternating current motor, a *rotating armature around a stationary field magnet* is the equivalent of a *rotating armature within a stationary field magnet*.

Century El. Co. *vs.* Westinghouse El. & Mfg. Co.
(191 F., 350).

Ingredients.

Powdered asbestos is the equivalent of *powdered soapstone* as a lubricant for electrical packings, where the powdered asbestos was accepted by the user as answering every purpose of electrical insulation.

Pratt & Johns *vs.* Thomson (72 O. C., 1347).

Acetone or *ketone* held to be the chemical equivalent of an *alcoholic ingredient* in a paint and varnish remover. The authorities uniformly hold that the word "equivalent" as applied to a chemical action may mean a fluid which is "equally good" with that specified in the patent. *Tyler vs. Boston* (74 U. S., 327).

Chadeloid Chemical Co. *vs.* Frank S. DeRonde Co. (146 F., 988).

Nickel, Cobalt and Manganese held to be equivalents of iron when alloyed with cerium.

Freibacher Chemische Werke Gesellschaft mit beschränkter Haftung *vs.* The Roessler & Hasslacher Chemical Co. (209 O. G., 1689).

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Res Adjudicata as a Ground of Rejection

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A paper read March 18, 1915, before the Examining
Corps of the United States Patent Office

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1915

Res Adjudicata as a Ground of Rejection

By

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The question of Prior Adjudication in Patent Office cases may come before the Examiner in several different forms. It is a question which, more often than otherwise, he must raise and consider on his own motion.

The subject is not without difficulty even in ordinary legal procedure and in Patent Office practice the character of the rights involved and the intricacy of the proceedings further complicate the questions.

I shall not discuss the doctrine of *res adjudicata* broadly nor attempt definitions. A very clear statement of the doctrine in general may be found in the case of *Nesbit vs. Riverside*, 144 U. S., 610, a decision of the U. S. Supreme Court. Assuming a knowledge of these general principles I shall refer only to those phases of the subject which directly affect the Examiner's action on applications.

That the doctrine applies to Patent Office proceedings is now so well settled as scarcely to require citation of authority. This will affirmatively appear from a perusal of decisions cited below, notable among which, on this point, is the early decision of the Court of Appeals of the District of Columbia, *In re Barratt's Appeal*, decided in February, 1899 (87 O. G., 1075; 14 App. D. C., 255).

The simplest case of this nature in the Patent Office arises when a second application for the same invention as claimed in an earlier application is presented for examination—the earlier application having been finally disposed of as unpatentable. Such second application, can not, of course, be ignored; it must be acted upon. Furthermore, as was pointed out in the case of *Ex parte Kenny* (118 O. G., 2253), a decision by the Commissioner in 1905, it requires some examination to determine

that it is for the same invention as a prior case; but having found this to be true, that alone constitutes a sufficient ground for refusing the patent. In ruling upon this point in the Barratt case, above cited, the court said:

In what we have said we do not desire it to be understood that the Patent Office may not, if it thinks proper to do so, entertain and adjudicate a second application for a patent after the first application has been rejected. What we do decide is, that it is not incumbent upon the Office as a duty to entertain such applications, and that, if it refuses to entertain them, it has a perfect legal right to do so. An applicant is not legally aggrieved by such refusal.

This view had been taken by the Office long prior to that decision, as appears from the Commissioner's decision in *Ex parte Nichols* rendered in July, 1870 (C. D., 1870, 71). In 1872, however, two decisions were rendered by the Commissioner in which the position was taken that such second application should also be examined on its merits and the pertinent prior art applied to the claims. These were the cases of *Ex parte Le Van* (C. D., 1872, 40), and *Ex parte Gordon* (C. D., 1872, 145), decided in March and June, respectively, of 1872.

The latter case involved a so-called "renewal" under the act of 1870, which allowed six months for the renewal of certain applications rejected under former acts. The decision was based upon the terms of the act and therefore involves a special case having no real bearing on present cases.

The case of *Ex parte Le Van*, however, contains an argument for adding an action on the merits based on the prior art, which at first blush seems difficult to meet. It is this: if the case be rejected on *res adjudicata* alone the applicant must spend at least ten dollars additional in appeal fees before receiving an action on the merits, in the event the Examiner is wrong about the *res adjudicata*, whereas the statute provides for an examination on the merits for the first fee of fifteen dollars.

An answer to this argument, however, is to be found

in the fact that no one has a right to thrust useless work upon the Office merely by going through the form of filing applications. On this very point the Court of Appeals said, in the Barratt case cited:

If a second application could be regarded as proper, why not ten or twenty successive applications? Where are the applications to stop, and what would become of the public business, if it were in the power of one person to obstruct the operations of the Patent Office by repeated and persistent applications? These questions answer themselves.

As to the extra cost of ten dollars which may be involved, this is, in any event, not conclusive against the practice, for the same objection might be raised against the present practice in requiring division. That, too, may involve the expense of an appeal prior to a full action on the merits. Yet the present practice on division was instituted on no less an authority than that of the Supreme Court of the United States, whose decision in the Steinmetz case took the appeal in the first instance in such cases away from the Commissioner, where no fee was required, and sent it to the Board, where a fee is required.

On this point it is also to be observed that the fee for appeal to the Board on the question of *res adjudicata* will cover any later appeal on the merits which may be taken to that tribunal, and such an appeal will almost certainly be necessary if the Examiner was originally of the opinion that the first and second applications were substantially identical.

Furthermore, the Examiner is unlikely to be in error in rejecting a case as *res adjudicata*. This ground of rejection is in fact applicable in relatively few cases. The tendency, if only from habit, is to examine a case on its merits and the doctrine of *res adjudicata* is not apt to be applied except in a clear case.

Returning, for a moment, to the course of the Office decisions on the subject, it may be noted that in the case of *Ex parte Arkell* in June, 1877 (C. D., 1877, 73), prior to the Barratt decision by the court, the Commissioner

returned to the holding of the Nichols case of 1870, and in *Ex parte Kenny*, in October, 1905 (118 O. G., 2253), and *Ex parte Millet and Reed*, in May, 1907 (128 O. G., 2836), following the Barratt case, the practice of disposing of the case on the ground of *res adjudicata* alone was fully and specifically authorized. A still later case by the Court of Appeals of the District, *In re Edison*, decided in February, 1908 (133 O. G., 1190; 30 App. D. C., 321), recognizes the practice as correct and quotes the Barratt case with approval, though the decision went off on another point.

Under the existing authorities, therefore, it seems clear that the Examiner need not go into the merits of the second application. On the other hand, there is no ruling to prevent his doing so if the ends of justice seem to require it.

As to the character of the application which is subject to this rejection, it is obvious that the second case need not be an exact duplicate of the earlier one. Even the claims need not be duplicates, as will appear from *Ex parte Millett and Reed* and *In re Edison*, cited. The criterion is identity of the inventions claimed in the two cases. The advantage to be gained in saving of time and labor by an application of the doctrine manifestly diminishes rapidly with the divergence in the disclosures of the two cases in question, because the difficulty of determining identity increases in proportion as it is concealed by changes in disclosure and terminology. Nevertheless, if prior adjudication is a pertinent ground of rejection in any case, it should be used by the Examiner at least in connection with other reasons of rejection so that in the event of an appeal on the merits the complete situation may be laid before the appellate tribunal.

Ordinarily, the saving of work by applying the doctrine is considerable, since, as a rule, the finding of identity is easy, while the examination and application of the prior art is difficult and time-consuming.

The most common occasion for rejecting claims as *res adjudicata* is after an interference. Rejections under rule 132 are, in fact, nothing more nor less than this, as, of course, are the rejections of other claims to the

same invention as that in issue, whether contained in the same application or a different one. That an interference constitutes an adjudication in favor of the winning party, of all subject-matter common to the cases involved, is a familiar rule of frequent applicability. It has been so firmly established by the decision in *Blackford vs. Wilder* (127 O. G., 1255; 25 App. D. C., 535), and subsequent decisions of the Court of Appeals as to need little comment. It should be observed, however, that this rule obtains even in cases where the claims in question could not ordinarily have been introduced into the existing interference; provided, only, that the party to be rejected had notice of the fact that the subject-matter of those claims was subject-matter common to the cases.

Thus, in the case of *Temple and Goodrum* (176 O. G., 526), the losing party to an interference thereafter presented claims which read upon his own case and upon the two other cases with which he had been involved, but which could not have been added to that interference because of a decision in another interference adverse to one of the other parties. These claims were held *res adjudicata* because the applicant, had he chosen to do so, could have presented and contested them with the party who could have made them, concurrently with the other interfering subject-matter, although, necessarily, in a separate two-party interference.

Again, in the *Marconi* case (179 O. G., 577; 38 App. D. C., 286), Marconi had two applications disclosing different species of the same invention. One went into interference with Babcock, on specific claims. The other went to issue on claims to the other species. Marconi lost the interference and then attempted to reissue the patented case with broad claims. When these met rejection on the ground of *res adjudicata*, he contended that they could not have been made and adjudicated in the interference because he could only have presented and patented those claims, if at all, in the first case to go to patent, under penalty of having them held invalid by the courts. Nevertheless the Court of Appeals held that he was concluded by the decision in the interference because he could, if necessary, have filed his re-issue application in time to have had it included in the

first interference, or could have prosecuted the claims through the interference in the pending case, and then transferred them to a reissue application.

A holding of similar effect was made in the case of *Robinson vs. Copeland* (187 O. G., 514 and 188 O. G., 1055).

Where the proceedings in an interference are such that the parties do not have the opportunity to inspect each others' applications, as where the interference is terminated by a concession of priority early in the proceedings, the doctrine of *res adjudicata* apparently does not apply to claims for matter not covered by the actual issue of that interference (*Felsing vs. Nelson*, 20 Gour., 6-12).

As a general thing the rule extends, however, not only to claims other than the precise issue but to claims presented in applications of other inventors than those actually involved in the interference when such applications or the inventions therein disclosed were controlled during the pendency of such interference by the same party in interest as the application actually involved. In the case of *Temple and Goodrum* above referred to the assignee of the losing party presented the claims of the issue in another application by a different inventor owned by the assignee at the time the interference was declared, and the Commissioner held that the prior adjudication was ground for rejecting such claims in that application as well as in the application which was unsuccessful in the interference.

This ruling was further extended in the case of *Frickey vs. Ogden*, decided in November, 1913, by the present Commissioner (199 O. G., 307). There, the second application in which the claims were presented, though owned by the same assignee, was not only by a different inventor but was not on file at the time the interference was declared. It appeared, however, that the assignee controlled both inventions at that time and could, had it desired, have filed the *Frickey* application in time to have it included in the interference, and it was held that the right of the assignee was *res adjudicata* and the interference was dissolved. This decision is not, of course, to be taken as holding that the doctrine will invariably be applied to such applications, because, like

other decisions, it is based upon a specific set of circumstances. It well illustrates, however, what a salutary use may be made of the principle, in Patent Office practice.

Formerly it was generally assumed that nothing short of a final rejection of claims *ex parte* or a formal award of priority in an interference was ground for a holding of *res adjudicata*.

In its decision in the Newcomb Motor case, however, rendered in 1908 (133 O. G., 1680; 30 App. D. C., 464), the Court of Appeals went farther than this. It held that a decision of the primary examiner rendered upon a motion to dissolve may, under certain circumstances, be a final adjudication. The circumstances in that case were briefly these: The Examiner held that Thompson had no right to make the claims, and dissolved the interference. An appeal from that decision was filed, but was afterward abandoned. Thompson then appealed the claims *ex parte*, and got them allowed. The Examiner thereupon redeclared the interference and Newcomb moved to dissolve, on the ground of *res adjudicata*. The Commissioner, when the question came before him, set aside all proceedings subsequent to the first decision of the Examiner dissolving the interference but ordered a reconsideration of that holding *inter partes*, with the right of appeal should the Examiner hold to his original opinion. The court's decision came on a petition for mandamus. It held that the Commissioner was without authority to order such a reconsideration and that Thompson was concluded, once for all, by the first decision of the Examiner when it became final by failure to prosecute an appeal therefrom.

It is important to note that the Examiner's holding was to the effect that the party had no right to make the claims and that the court apparently based its ruling upon the idea that this was equivalent to an award of priority to Newcomb so far as Thompson was concerned, inasmuch as a lack of right to make the claims is ground for awarding priority (*Podlesak vs. McInnerney*, 120 O. G., 2127; 26 App. D. C., 399). No dissolution of an interference on any other ground has, thus far, been held conclusive as to a party's right to a patent.

The *inter partes* consideration of the prior art, for instance, on motions to dissolve based on unpatentability is apt to be more thorough, if anything, than an *ex parte* consideration, and there seems to be no good reason why an *inter partes* determination that claims are unpatentable over the art should not be equally binding upon the parties, except that no *inter partes* appeal can be taken to the Court of Appeals on such a question under the present decisions of the court, and every applicant is, of course, entitled to the opportunity of appeal to that court upon the patentability of his claims before they can be held finally adjudicated against him (see *Gold vs. Gold*, 150 O. G., 570; 34 App. D. C., 229). Motions to dissolve, as such, can go no further than the Commissioner. Of course this objection applies also to motions to dissolve on the ground of no right to make the claims, but in the *Newcomb Motor* case, the court stated that the Commissioner undoubtedly had jurisdiction to go farther upon the decision of a motion based upon this ground and award priority to the party who could make the claims, and from such an award appeal could be taken to the Court of Appeals. Following this suggestion the Commissioner has in many cases awarded priority instead of dissolving the interference when a motion to dissolve, on the ground of no right to make the claims, has come before him, and the court has entertained appeals from such decisions (*Cosper vs. Gold and Gold*, 151 O. G., 194; 34 App. D. C., 194, and 168 O. G., 787; 36 App. D. C., 302).

As will appear from the cases which have been referred to it has frequently happened that the finding of *res adjudicata* has not been made until the case has become involved in an *inter partes* proceeding. This has usually happened, however, either because the rules which control such cases were in process of formation or because the Examiner failed to note the prior adjudication or disagreed as to its applicability. In all the various circumstances which have been here discussed it is the duty of the Examiner to use the prior adjudication as a ground of rejection in the *ex parte* treatment of the case, and to do so will often avoid the declaration of unnecessary interferences and their attendant complications.

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The Benignant Agency of Construction in the Courts

A paper read March 18, 1915, before the Examining
Corps of the United States Patent Office

BY

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U. S. Patent Office.

WASHINGTON, D. C.
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This paper takes its title from the text of a decision, *Ex parte Pacholder*, rendered by Commissioner Mitchell in 1890 recommending the granting of claims fully commensurate with the scope of an invention by the employment of words "means," "mechanism," and "appliances" expressed therein. While the requirement of the statute, that the office of the claim is to particularly point out and distinctly claim the part, improvement, or combination which the applicant claims as his invention, is recognized in this decision, yet a liberal construction and allowance of claims for a novel and meritorious invention is urged by permitting the use of such terms of broad inclusion. As stated in the decision:

"No general rule can be laid down for governing the employment in the claims of patents of such words as those under consideration. It is the object of the law, as it is the solicitude of the Office, to protect inventors and guard their inventions. This object is best secured in the case of patents which represent the maturity of the art by taking care that claims shall be drawn with all reasonable restrictions so that they shall be valid in spite of everything that is contained in existing patents and of everything previously known and used. In the case, however, of patents which represent the infancy of an art or the stage of its earliest practical development this Office is equally solicitous that the inventor should be

accorded a breadth of claim which is commensurate with the extent and importance of the invention which he desires and is entitled to protect. In such cases it is a rational expectation, based upon common experience, that the worst form of piracy upon a patented invention will be that in which there is, along with the appropriated principle of the invention, the largest departure in form and structure from the form and structure shown in the drawings and described in the specification. Nevertheless, if the principle be appropriated by the infringer, the injury is just as great as if the appropriation had included the form and structure, as well as the substance, of the invention. Of course, in all such cases, while the Office will insist upon as much definiteness in the language of the claims as the statute calls for, it will also, if it properly discharges its function as the protector of the inventor, leave something to the *salutary and benignant agency of construction in the courts.*"

The author of this decision thus admirably states his views derived from a long experience as a patent practitioner before the courts, which views are fully in agreement with the trend of leading court decisions sustaining patents covering meritorious inventions, even when the language of the specification was obscure and when the claims did not cover the invention in the distinct and specific form required by the statute.

It is the purpose of this paper to point out instances showing this liberal construction of patents by the courts, and to show by these instances how the courts endeavor, as best they can, to search out the substance of an invention, disregarding to a certain extent the form in which the document or instrument, termed the patent, is presented to them, and thus in fact become the "salutary and beneficent agency" in upholding valuable property rights in inventions which would otherwise be lost or pirated.

As a prelude to these citations it may be well to state briefly some facts as to the history of the patent grant and how it is regarded by the courts in this country.

Letters patent, as originally granted under the royal prerogative of the sovereigns of England, before the passage of the Statute of Monopolies, conferred exclusive rights upon a few favored subjects to pursue certain trades or to deal in certain manufactures or articles of commerce, and were granted indiscriminately in some cases as marks of special favor, in others for the avowed purpose of raising revenue. These monopolies covered not only articles of foreign importation into the realm but also numerous articles of daily consumption such as salt, oil, iron and paper, and thus constituted a means of oppressive indirect taxation for the benefit of the sovereign and a few favorites. As to inventions, the early letters patent show that the grantee in many cases was not the actual inventor, but merely one who had contributed to its introduction, either, in the words of the grant, "by their wit and invention or by their charge and industry." But whether the grant was made to the original inventor or to one who introduced the manufacture forming the subject of the invention from abroad, the main principle upon which the title to the invention rested was its introduction into the realm and not its conception. These early patents were granted for a term of twenty-one years. They contained no provision for insuring to the public the knowledge of the invention. If the grantee kept his secret, he might, in fact, enjoy his monopoly for a much longer period than the term of the grant. Toward the end of the reign of Queen Anne, however, the proviso was inserted in all letters patent requiring the grantee particularly to describe and ascertain the nature of his invention and in what manner the same was to be performed or manufactured. Thus originated the specification of letters patent.

On May, 25, 1624, during the reign of James I, the famous Statute of Monopolies was passed by Parliament, which declared that all monopolies were contrary to the laws of the realm and should thereafter be void and of no effect. It was, however, especially provided that this declaration should not extend to letters patent, heretofore made for the term of twenty-one years or hereafter made for the term of fourteen years, to the true and first inventor or inventors of any manner of new manufactures

within the realm, which others at the time of granting did not use so they be not contrary to the law or mischievous to the state. The statute also provided that the force or validity of these letters patent ought to be and should be thereafter examined, heard, tried, and determined by and according to the *common laws* of the realm and not otherwise.

At the time of the passage of this statute by Parliament, monopoly or anything that savored of monopoly, even in the beneficial form of a grant for a newly discovered invention, was odious to both the courts and the people. This odium persisted toward an inventor, however meritorious, who had obtained a patent and thus became a monopolist dependent for his exclusive rights upon a royal grant in his favor. For this reason, whenever the grant came before the courts for adjudication all rights under the patent were strictly construed against him. Any fault or vagueness in the description of the invention, any deviation or excess of claim from what he had actually disclosed, were eagerly seized upon by the courts and made an excuse for invalidating his patent. One of the most famous inventions in history, the Richard Arkwright spinning frame, invented in 1775, was, after the inventor had enjoyed his exclusive rights for a period of ten years, and amassed a fortune therefrom, brought before the court of the Kings Bench on a writ of *scire facias* to repeal the patent, which recited, among other things, "that although the said Richard Arkwright did cause a certain instrument in writing, under his hand and seal, together with a plan thereof to be enrolled in the High Court of Chancery, pretending particularly to describe and ascertain the nature of his said invention and in what manner the same was to be performed, yet the said Richard Arkwright hath not in and by the said instrument in writing particularly described and ascertained the nature of his invention, but hath neglected so to do contrary to the form and effect of the said letters patent; by means of which premises the said letters patent are and ought to be void and of no force or effect in law."

The decision in this case was directed especially to the inadequacy of the specification in setting forth the invention so that other persons could construct the same,

and was based mainly on evidence of mechanics as to their ability to construct and work the invention from the plans and description of the specification. The verdict of the jury was against the inventor and the patent was declared void.

This method of strict construction of the contents of letters patent against the patentee continued in the English courts until the year 1800 when Lord Eldon, sitting as judge in the case of *Cartwright vs. Arnett*, in that year, first suggested that patents were to be construed in the light of bargains between the inventor and the public, to be adjudicated in accordance with the principles of good faith between the parties in consideration of the inventor having made a fair disclosure of his invention to the public, and thus to be construed as other bargains between two parties.

As showing further the changed attitude of the English courts toward patents, their more liberal interpretation of their contents and disposition to uphold and preserve the property rights covered thereby, I wish to refer particularly to the cases of *Neilson vs. Harford* and *Househill Co. vs. Neilson* (*Websters Eng. Pat. Cases*), in which the Neilson patent, granted October 1, 1828, for "the improved application of air to produce heat in fires, forges and furnaces" was adjudicated. The Neilson invention consisted in heating air prior to introducing it into a blast furnace whereby it was found that the smelting of ores could be accomplished in much shorter time and with a saving of fuel.

Before this invention the blast was produced by any mechanical means, passed through a regulator, and entered in a cold stream into the furnace; and at this time there was a strong opinion entertained by iron manufacturers that it was better for the purpose of smelting iron that the stream of air should enter the furnace cold, since the air blast was found to work more effectively in winter than in summer.

This invention was stated before the court to be one of the greatest importance, that there had been nothing discovered up to that time which had produced so considerable an effect in one of the greatest industries of the realm; namely, the smelting of iron ore. It had enabled manufacturers to bring into operation new fields

of iron, and coal, that before this discovery had been deemed impossible to apply to the smelting of iron. As to the scope or what was covered by the patent, it was to be understood that the forms and sizes of the vessels in which the air was to be heated might vary; but the patent was considered by the patentee and his solicitors to cover any attempt to pass the air from the blowing power through an air vessel which was heated, and then conducting that heated air into a furnace to be used for smelting purposes.

On the other side against sustaining the patent it was argued that the specification seizes hold of an abstract principle, namely, that hot air produces a hotter fire than cold, and of that abstract principle alone; the patentee purposely avoids any mode of stating how the principle should be applied; hence the patent is bad as being one for a principle alone.

The judge, in his instructions to the jury, in the Neilson *vs.* Harford case, said:

“Half a century ago or even less, within fifteen or twenty years, there seems to have been very much a practice of both judge and jury to destroy the patent right, even of beneficial patents, by exercising great astuteness in taking objections, either as to the title of the patent, but more particularly as to the specification, and many valuable patent rights have been destroyed in consequence of the objections so taken. Within the last ten years or more the courts have not been so strict in taking objections to the specification; and they have endeavored to hold a fair hand between the patentee and the public, willing to give the patentee on his part, the reward of a valuable patent, but taking care, on the other hand, of the benefit of the proviso which is introduced into the patent for their advantage, so that the right to a patent may be fairly and properly expressed in the specification.”

“Upon this occasion,” the judge continued, “I have only to invite your attention to the evidence, and to desire you to decide all questions arising upon the specification, without any bias on either side, with no desire to give the public the benefit

of this patent by tripping it up but fairly to exercise your judgment between the patentee and the public."

The instructions to the jury that followed were to the effect that, if they were of the opinion that a person of competent skill, such as a practical workman who brings the ordinary degree of knowledge and capacity to the subject, could construct an apparatus adapted to carry out the invention, whatever its scope, the patent, nevertheless, would be good though no particular form of apparatus was stated in the specification.

In the second case, *Househill Co. vs. Neilson*, before the House of Lords in 1843, Lord Justice Hope in his instructions to the jury said:

"His invention, then, consists, according to a fair meaning of the specification, taken as a whole and candidly considered, in passing a blast into an air vessel or receptacle, in order to be heated—in order at that stage of the process of application of air to fires, to acquire the agent which he intends to act—heat in the blast, instead of a cold blast. How you heat, in what mode or in what vessel, provided the vessel be strong enough to endure the blast, and of cubical contents of air sufficient for the blast, I neither care nor direct you; for if you so get the hot blast into the furnace by heating the air in a vessel between the blowing engine and the fire, you attain my object; you will get my improved application of air."

"The defenders say—you announce a principle, that hot air will produce heat in a furnace; you direct us to take the blast without interrupting it, to heat it and throw it hot into the furnace. But you tell us no more; you do not tell us how we are to heat it. . . . The defenders say the patent on this account is bad in law. I must tell you, that even taking the patent to be of this general character, that it is good in law. I state to you the law to be, that you may obtain a patent for a mode of carrying a principle into effect; and if you suggest and discover not only the principle but suggest and invent how it may be applied

to a practical result by mechanical contrivance and apparatus, then you may take your patent for the mode of carrying it into effect, and are not under the necessity of describing and confining yourself to any one form of apparatus."

The jury found for the patentee Neilson, and thus sustained the patent on all the issues.

These extended statements of the Neilson patent cases are made not only to show the changed attitude of the English courts toward inventors and patentees and the broad and liberal construction that finally obtained toward patents, but also for the reason that these cases have exercised a controlling influence upon and have been quoted and followed in the decisions of courts in this country in cases where basic patents were adjudicated, such as *O'Reilly vs. Morse*, *Tighlman vs. Proctor*, and the American Bell Telephone cases, an all of which broad claims for inventions were upheld which covered both the method and means for the application of a principle or natural force in some manner to a physical object, the concrete forms of its embodiment and practical application being held not to be material or necessary to be defined in the claims.

In this country the exclusive rights of the inventor to property in patents, the same that the owner of any other species of property may enjoy, has always been recognized, and the courts in adjudicating patents have generally construed patents liberally on the principle in equity that "property rights may prevail rather than perish." The foundation of these rights of an inventor is, as stated by Walker, the consent of the people of the United States as primarily expressed in the Federal Constitution and elaborately defined in the Federal Statutes. As forcefully stated in the decision of the Court of Claims, in *McKeever vs. The United States*:

"In this country our organic law recognizes in the clearest terms that mind-work which we term inventions. What immediate reasons operated on the framers of the Constitution seem to be unknown, but it is clear that they had a clear apprehension of the English law, on the one hand,

and a just conception, on the other, of what one of the commentators has termed 'a natural right to the fruits of mental labor.' Instead of placing our patent system upon the English foundation of Executive favor, and conferring that prerogative of the Crown upon the President, they transferred all authority to the legislative department of the government—the department which regulates rights—by placing it among the specially enumerated powers of Congress.

"It is a noticeable fact, which, however, seems to have received little attention, that neither the word 'patent' nor the word 'grant' is used in the Constitution. The words which it does employ, moreover, are unmistakably clear in the intent of its recognition. The language of the English law is, in substance, that the Crown may grant or confer upon the inventor a patent subject to the conditions and limitations which attach by implication to grants from the Crown. The language of the Constitution, on the contrary, confers upon Congress the power of '*securing* to inventors the exclusive right of their discoveries.' Congress is not empowered to grant to inventors a favor but *to secure to them a right*. And the term 'to secure a right' by no possible implication carries with it the opposite power of destroying the right in whole or in part by appropriating it to the purposes of the government without complying with that other condition of the Constitution, the making of just compensation."

These are the views which are generally adopted by the Federal courts in the construction of patents, to the end that the patent should always be liberally interpreted in favor of the patentee; for the reason that a patent represents actual property the extent and title to which are neither to be limited or disturbed during the term of its existence, upon any doubtful grounds.

Early in the last century, about 1828, the case of *Grant vs. Raymond* came before the Supreme Court, which involved the question of the power of the Secretary of State to receive the surrender of a patent, cancel the

record thereof, and issue a new patent for the unexpired part of the original term of fourteen years, when a defect was found to exist in the original patent, said defect being the result of an inadvertent error on the part of the patentee and without any fraud or misconduct on his part.

Chief Justice Marshall, who delivered the opinion of the court, said in part:

“The communication of the discovery to the public has been made in pursuance of law, with the intent to exercise the privilege which is the consideration paid by the public for the future use of the machine. If, by an innocent mistake, the instrument introduced to secure this privilege fails in its object the public ought not to avail itself of this mistake and to appropriate the discovery without paying the stipulated consideration. The attempt would be disreputable in an individual, and a court of equity might interpose to restrain him.”

The rulings of the court in this case sustained the right of the government to reissue amended patents and were afterward embodied in legislation, providing thereby a method by which defective patents could be cured and the patentee protected to the full measure of his rights for the remainder of the term of the patent.

The beneficial adjudication of the courts in aiding a foreign inventor to obtain the full measure of his rights by reissue was never more clearly evidenced than in the case of *In re Heroult*, decided in the Court of Appeals D. C., in 1907. Heroult, a citizen of France, invented and obtained a French patent for a new and valuable electrical process for obtaining soft metals and a furnace for carrying out the process. The patent issued in this country for a single claim covering specifically the furnace structure. An application for reissue containing process claims together with the single apparatus claim was rejected by the office and thereafter taken on appeal to the court. The oath accompanying the application stated that the patent granted was inoperative for the reason that the specification was defective in the failure

of the claim to describe applicant's real invention. The court held it to be apparent that the patent if issued covering the furnace alone was of little or no practical value and that there was no question but that the process was both novel and valuable, and ruled that a re-issue could be granted *covering both the method and the apparatus.*

Joinder of inventions, such as permitted in the case just cited, where the inventions are kindred and auxiliary, is the general rule in the courts. Separate patents covering machines can be joined in one suit if it be shown that they are capable of conjoint use. Also, as stated in *Robinson*, the courts allow a process to be embraced in the same patent with the apparatus by which it is performed and the product in which it results, where all originate in the inventive genius of the same inventor, although the process, the apparatus, and the product are so far separable from each other that the process might be otherwise performed, the apparatus otherwise employed, and the product otherwise produced. In a recent decision by the Circuit Court of Appeals, in *Century Electric Co. vs. Westinghouse Electric Co.*, of October 27, 1914, it was held that:

“One who makes several patentable inventions that produce a new and useful process or machine, or both, pertaining to the same subject-matter has the option to take one patent therefor or as many separate patents therefor as he makes patentable inventions.”

The Supreme Court, in the case of *Steinmetz vs. Allen*, while admitting the right of the Commissioner of Patents under the statute to establish regulations not inconsistent with law for the conduct of proceedings in the Patent Office, held that since the statute gave the right to join inventions in one application where the inventions are related, such a right can not be denied by a hard and fixed rule, such as rule 41, as it then existed, which prevented joinder in all cases of process and apparatus. This provision of the rule was held to be invalid, since it was mandatory in character and entirely ignored the differences existing between cases covering process and

apparatus, which would justify the exercise of discretion in permitting joinder. There is no question but that Rule 41, as it existed, made the practice of the Office on the question of division more simple and uniform, but the court in holding this rule to be invalid recognized the principle that Office rules and decisions can not be so interpreted and enforced as to restrict the right of an inventor to fully protect his invention by a single comprehensive patent, and also the right of appeal to the highest court if necessary, in his efforts to determine and obtain the full measure of his rights under his patent.

It is evident from the trend of leading decisions that the courts are desirous of sustaining patents covering basic and meritorious inventions, even though the claims are incomplete and functional, and the invention covered therein apparently fully anticipated in the prior art. The rule as stated in a recent decision of the circuit court of appeals is followed, to the effect that:

“A patent is a contract and the rules for the construction of contracts generally control in its interpretation; and when the terms are plain and the invention of the parties clearly manifest, they must prevail; but if its expressions are ambiguous, or the validity of any claim is doubtful, that construction will be given which will sustain rather than destroy the patent.”

Denning Wire & Fence Co. *vs* American Steel & Wire Co., 1909.

In a number of decisions sustaining doubtful but meritorious patents when attacked by infringers, it will be found that reliance is placed on the dictum of Justice Bradley in Webster Loom Co. *vs* Higgins, decided in 1882, to the effect that:

“It may be laid down as a general rule, though not an invariable one, that if a new combination or arrangement of old elements produce a new and beneficial result never attained before, it is evidence of invention. It was certainly a new and useful result to make a pile fabric loom produce fifty yards a day where it never before had produced more than forty, and we think that the

combination of elements by which this was effected, even if these elements were separately known before, was invention sufficient to form the basis of a patent."

In sustaining the validity of a patent for a method of mixing molten metal in the case of the Carnegie Steel Co. vs The Cambria Iron Co. in 1902, the utmost liberality was shown by the court in brushing aside all the anticipating prior art cited although pertaining to the same art of manufacturing steel. The Bessemer process of purifying iron by blowing air through a molten mass of pig-iron in a converter and subsequently partially recarbonizing it to a degree necessary to convert it into steel, was found to be defective in that the output from the blast furnaces yielded products of steel, such as rails and beams, which were irregular and uncertain in their final condition, some sound, others of imperfect strength and full of flaws. This was remedied by providing a reservoir of such size and strength as to receive supplies from the various furnaces, and so regulated that in delivering supplies of molten iron to be carried to the converters for manufacture into steel rails, the supply could not be wholly emptied, and this remainder, which was successively added to from various furnaces, by the well known law of diffusion of liquids, was thus made uniform in quality and chemical composition. This invention was set forth in claims as "an art of mixing molten metal to secure uniformity in its constituent parts preparatory to further treatment." The prior devices were admitted to show reservoirs between the blast furnaces and the converters used for storage and admittedly for such necessary steps as would *incidentally* produce uniformity in the mixture, but none of them showed the retention of a considerable quantity of metal in the reservoir as a prerequisite to that uniformity which it had been the constant effort of manufacturers to secure. It was held that a process patent, such as that under consideration, was not anticipated by mechanism which might with slight alterations have been adapted to carry out the process, and that the mere possession of an instrument or mechanism contains no suggestion of all the possible processes to which it may be adapted. In this connection a similar holding in the case of New

Process Fermentation Co: vs. Maus was quoted. Reference was also made to the fact that this process was not accidentally discovered but was the result of a long search for the very purpose, and when it was found it was a surprise to the manufacturers of steel to ascertain that it was but a step from what they knew to that which they had spent years in endeavoring to find out, and that now it only remains for that wisdom which comes after the fact to teach that the patentee discovered nothing, invented nothing, accomplished nothing.

When in cases like this the courts strive to maintain the validity of patents which show results in improvement in quality or increased production over apparently identical devices and processes in the same art, there is no question but that they would deem valid those patents covering devices in which a new and improved result was obtained from the adaptation of means to a new purpose, although nearly identical in form and structure, as is shown by the liberal construction placed upon patents of this class in the cases of *Hobbs vs. Beach* and *Potts vs. Creager*.

Functional claims, especially in the case of pioneer patents which represent the infancy of an art and introduce to the public some art or instrument entirely new, are generally construed by the courts as liberally as the language of the specification will permit, the function or result covered broadly by the words "means" or "mechanism" being construed to cover the devices or apparatus effecting the result.

The case of *Morley Sewing Machine Co. vs. Lancaster*, decided by the Supreme Court in 1889, is frequently quoted in such cases, and is referred to by the Commissioner Mitchell in the *Pacholder* case above cited in the following language:

"If the abundant use of the words 'means,' 'mechanism,' or 'appliances' in claims can invalidate them in view of the statute which requires the applicant to 'particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery' it will be conceded that the claims of *Morley* were void for indefiniteness. . . . It is impossible to avoid the conclusion that if *Morley* had

been held to the doctrine that such words may not be used in claims, when suitably qualified, he would have been unable to hold as an infringer one who appropriated the principle of his invention disguised in an organization different from that which he showed in his patent in every other respect."

Such a construction of a functional claim was also adopted in the case of *The Swain Turbine and Manufacturing Co. vs. Todd*, in 1877, when the court said:

"To uphold these claims they must not only be construed in connection with the described means of the reissue, but also so construed as not to embrace any invention broader in its scope than the invention described or substantially suggested or indicated in the original."

Also in the case of *Von Schmidt vs. Bowers*, of 1897, the court held that:

"The Bowers' patents disclose and cover inventions of a pioneer character, standing at the head of the art, and their claims are entitled to a broad and liberal construction. Said claims are not to be limited to any particular form or construction of elements which make up the combinations, but they are broad generic claims without any limitation as to the form of construction of the particular elements; and all subsequent machines which employ substantially the same means to accomplish the same results are infringements."

Also on the consideration of the Brush patent before the court in 1890, in the case of the *Brush Electric Co. vs. The Western Electric Light and Power Co.*, the first claim alleged to be infringed read as follows:

"In an electric lamp, two or more pairs or sets of carbons with mechanism constructed to operate said pairs dissimultaneously or successively."

The prominent feature of this invention was the use of the double set of carbons in such a manner that when the

first pair is consumed the electric arc is automatically established between the second pair which continues until they are consumed. This claim and other claims of similar import were upheld by the court against all objection to their alleged functional character and all alleged anticipations by other patents.

A marked deviation from this practice is shown in the construction given to the broad functional claim of the Westinghouse patent in the case of the Boyden Power Brake Co. *vs.* Westinghouse before the Supreme Court in 1898, in which the dilemma was presented to the court of upholding a claim which was deemed to cover merely the function of admitting air to the brake cylinder directly from the train pipe, or permitting the alleged infringer to escape by construing the claim as limited to the particular means described in the specification for performing the function. The latter view was adopted, and a decree of non-infringement rendered, although with a dissenting opinion of four judges. The court said in part:

“We have no desire to qualify the repeated expressions of this court to the effect that, where the invention is functional, and the defendant’s device differs from that of the patentee only in form, or in rearrangement of the same elements in a combination, he would be adjudged an infringer, even if, in certain particulars, his device be an improvement upon that of the patentee. But, after all, even if a patent for a machine be a pioneer, the alleged infringer must have done something more than reach the same result. He must have reached it by substantially the same or similar means, or the rule that a function of a machine can not be patented is of no practical value. To say that the patentee of a pioneer invention for a new mechanism is entitled to every mechanical device which produces the same result is to hold that he is entitled to patent his function. Mere variation of form may be disregarded, but the substance of the invention must be there. . . . Conceding that the functions of these two devices are practically the

same, the means used in accomplishing the functions are so different, that we find it impossible to say, even in favor of a primary patent, that they are mechanical equivalents.”

The dissenting opinion, however, in conformity with prior decisions of the courts, was briefly as follows:

“It is not an unwarrantable extension of the term to speak of the invention in suit as a *pioneer*, since it is practically conceded in this case and justly stated by the court below to be ‘one of the highest value to the public,’ and conspicuously one ‘which entitles the proprietor to a liberal protection from the courts in construing the claim.’ The very fact that this invention resulted in placing it within the power of an engineer running a long train to stop in about half the time and half the distance within which any similar train had been stopped is certainly deserving of recognition. The claims of such patents have from time out of mind been allowed a liberal construction, and considered as entitled to the fullest benefit of mechanical equivalents. . . .

“Being of a character so described as a pioneer, the patent in suit is entitled to a broad and liberal construction. In other words the invention is not to be restricted narrowly to mere details of the mechanism described as a means of carrying the invention into practical operation.”

Where the invention covered in the patent being adjudicated is not of such character as to entitle it to a broad construction the rule stated by the Supreme Court in the case of *Cimiotti Unhairing Co. vs. The American Fur Refining Co.*, decided in 1905, prevails to the effect that:

“A greater liberality and a wider range of equivalents are permitted when the patent is of a pioneer character than when the invention is simply an improvement, and may be the last successful step in the art, theretofore partially developed by other inventors in the same field.”

In accordance therewith, it was—

“ *Held*, that the patent in suit discloses an invention of merit entitled to some range of equivalents in determining the question of infringement, but it is not one of those broad initiative inventions where original thought has been embodied in a practical mechanism which the courts have ever been zealous to protect and to which a wide range of equivalents has been accorded.”

Accordingly, in cases of this character, the courts look to the language of the claims, and in construing these claims the scope thereof may often be restricted by the description but it can never be enlarged. Here comes into consideration the record of the case as made up in the Patent Office, and the rule obtains that, when a claim is deliberately restricted in its terms by amendment after its rejection by the Patent Office in order to obtain a patent, the patentee can not consistently ask the court to construe such limited claim as if it were the broad rejected claim.

An instance in point is the case of the United States Repair and Guaranty Co. *vs.* The Assyrian Asphalt Company before the Supreme Court in 1902, in which the patentee tried to hold an infringer upon a claim for a method of repairing asphalt pavements, which consisted in subjecting the spot to be repaired to heat, then adding new material and smoothing and burnishing it. This method claim the court held to be invalid in view of the prior art shown in patents and publications, although the patentee was found to use new means, namely, *a blast of heat*, for softening the edges of the old asphalt in order to make a bond with the new material. The specification, however, stated that:

“The heating of the surface may be accomplished in various ways and by means of various forms of apparatus,”

and the claim included broadly the step of “subjecting the spot to be repaired to heat.”

In decreeing the invalidity of this broad method claim, the court said:

“Another objection to the proposed limitation of the claim by making it read ‘a blast of heat,’ or ‘a strong blast of heat’ in lieu of the unqualified word ‘heat’ is in the fact that the third claim which contained the additional words was withdrawn by the patentee upon a ruling or declaration of the Patent Office that the first and third claims were the same in substance and could not both be permitted to remain in the case. This was not a mere casual expression of opinion by an examiner, but was in effect a requirement that one of the claims be withdrawn, and no reason is perceived for not applying the ordinary rule. Having voluntarily abandoned the claim for a method limited to the use of ‘a blast of heat,’ the patentee may not now insist that a broad claim, containing no suggestion of such intention, shall nevertheless be subjected by construction to the same restriction. . . . It is not within the rightful power of the courts to enlarge or restrict the scope of patents which by mistake were issued in terms too narrow or too broad to cover the invention, however manifest the fact and extent of the mistake may be shown to have been.”

The teaching of this decision as applied to office practice is that, in the treatment of applications, particular attention should be directed to the proper scoping of claims. As in this case, slight variations of expression between claims may be of importance, and a specific claim containing this variation should not be rejected on a broader one since the specific claim may be the only one available to save the patent upon adjudication and hold an infringer.

Without indicating further the special rules of construction adopted by the courts in the interpretation of patents, or multiplying instances showing that the construction placed upon them is usually most liberal when novel and meritorious inventions are involved in

order to sustain a patent, it only remains to recommend this same spirit of liberality in the construction and allowance of claims for what are ascertained to be new and important inventions, with the knowledge that, if the invention possesses merit, an error in liberality of allowance is one that can readily be corrected by the interpretation of the court, based on the specification and drawing, as to the real scope of the invention, or that such errors can easily be remedied by the beneficial provision of disclaimer, whereas, undue restriction of claims by the Office and acquiescence therein by the inventor may constitute a fatal defect in the patent granted on the application, which, if the claims are clearly expressed, can not be remedied by an enlargement of scope by the court in a subsequent suit for infringement of the patent.

March 18, 1915.

Observations Pertaining to Examiners' Duties and Their Actions

WITH
Particular Reference to Rules 65 and 66

A paper read March 25, 1915, before the Examining
Corps of the United States Patent Office

BY

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Observations Pertaining to Examiners' Duties and Their Actions with Particular Reference to Rules 65 and 66.

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The foundation of the present patent laws is the examination system, and the results that have been achieved are in large part due to that system.

The commercial and practical value of an invention, not infrequently hinges, and is dependent upon the careful preparation of the application papers, and the skilled prosecution of the case by the applicant, or his attorney on the one hand; but, on the other by an exhaustive and thorough search of the accessible art by the Patent Office. The first is beyond direct office control; the law, however, not only imposes upon the examining corps, in each individual case, the duty of exhausting every means at its disposal to protect the public, and give real value to a patent; by placing on the record the known art at its command; but also when an Examiner, by his experience and knowledge of the art, sees the real merits and novelty of the invention, it is due to an applicant to make any proper and legitimate suggestions that will expedite the prosecution of the case, and will aid him in securing adequate protection. A strict adherence to the requirements of the Rules of Practice by the examining corps in the examination of cases, would, to a large extent, lessen and alleviate the many evils and troubles which are multiplied by lack of proper office facilities, and insufficient force, while, at the same time, it would greatly aid an inventor who is honestly desirous of securing a patent for a practical and meritorious invention.

Compliance with Rule 68 on the part of the applicant, or his attorney, in the majority of cases, if honestly attempted, would tend to the rapid disposal of cases without unnecessarily burdening the record. Yet, the fact that by reason of ignorance, or deliberate purpose, a few applicants, or their agents, will take advantage of every technicality which the liberal patent laws allow to delay the prosecution, by confusing the record, and befuddling, and worrying the Examiner by all manner of irrelevant, and immaterial amendments and objections, should not influence the Examiner to adopt the graver, and even more fatal and reprehensible error of non-compliance with what the law requires of him irrespective of any annoyances, and obstructive tactics he may be subjected to. With this class of cases, the Examiner being only human, is frequently tempted to come back in like tenor, and thus involve himself in endless argument and controversy, which in no way leads to a quick disposal of the case, but merely overloads the record with foreign matter. The adoption of this course, and we are all at times liable to it, is the narrow and prejudiced road to take, resulting only in the long run in loss of patience, and the prolongation of the prosecution, with the ultimate consequence of imposing on the Examiner unnecessary labor and loss of time.

Neglecting entirely the question, whether an applicant, or his attorney, does, or does not comply strictly with the requirements of the rules, ignorantly or otherwise, it is an Examiner's duty, as well as the easier way in getting results, to follow the rules fully. By so doing, the total number of actions will be correspondingly reduced.

From experience in six or seven divisions in dealing with very differing arts, I am convinced that no one, whether an Examiner or not, is competent to express a correct ex parte opinion on a claim related to an art with which he is unfamiliar. Claims which apparently amount to nothing, and the subject-matter thereof obvious, have an entirely different significance to one conversant with the difficulties to be met and overcome to attain a much desired result sought in the art to which the device relates.

The question of patentability, when it comes before the court is entirely different from the question presented before the Principal Examiner, or the Examiners-in-Chief in a case pending in the office.

In an infringement suit the court has the benefit of testimony, as to the commercial and practical advantage and value of the device involved, based on the adoption and use of it, and the case is presented before the court fully and in detail, and from all angles by skilled lawyers, and practical and theoretical experts in the art on both sides of the issue. Thus the court is able to judge intelligently, for example, whether or not a patentee with a mere paper patent for an undemonstrated, and apparently practically worthless machine is endeavoring to stifle the efforts of real and meritorious inventors and exploiters.

In answering an appeal, the Examiner does, or should cite the best art at his command, and should clearly set forth his reasons. In doing this, he can not possibly foresee, in many cases, what line of argument an applicant may take. On no few occasions it has been found that details, elements, and structural features, all of which are more or less of common knowledge in a particular art, and for that reason have never been discussed, except inferentially, in the prosecution of the case, are seized upon by counsel for applicant in his brief and argument, which would be immaterial if the Board were conversant with what is old and common in the art. The members of the Board obviously can not be familiar with, or have the knowledge of the real difficulties to be overcome, nor discriminate between what is vital, and what is merely superficial, in the numerous arts, classified in forty-three different divisions of the Patent Office. The Examiner, fortified with the individual knowledge and experience of his assistants, is better able to pass upon questions of patentability. At least, he should be better able, if he is entitled to be in charge of the work entrusted to him.

For this reason I am convinced, and, although I may be treading on delicate grounds, I am strongly of the opinion that the Examiners-in-Chief should be extremely careful, when affirming a rejection of the Primary

Examiner, in suggesting a claim as patentable without familiarizing themselves in some way with what may be a matter of common knowledge, and therefore immaterial so far as real and actual novelty is concerned.

In the treatment of an application, and as governing the Examiner's action, the most important and far-reaching rules in influencing the expeditious disposal of the case, are Rules 65 and 66.

Rule 65 provides:

“Whenever, on examination, any claim of an application is rejected for any reason whatever, the applicant will be notified thereof. The reasons for such rejection will be fully and precisely stated, and such information and references will be given as may be useful in aiding the applicant to judge of the propriety of prosecuting his application or of altering his specification; and if, after receiving such notice, he shall persist in his claim, with or without altering his specification, the application will be reexamined. If upon reexamination the claim shall be again rejected, the reasons therefor will be fully and precisely stated.”

Rule 66 provides:

“Upon the rejection of an application for want of novelty, the Examiner must cite the best references at his command. When the reference shows or describes invention other than that claimed by the applicant, the particular part relied on will be designated as nearly as practicable. The pertinence of the reference, if not obvious, must be clearly explained and the anticipated claim specified,” etc.

A departure from these rules in the early Office actions is often the source of numerous future troubles, and it is not going too far to state that fully 10 to 20 per cent of useless labor is due to this cause.

The importance of these rules should be one of the first things to be impressed on a newly appointed as-

sistant examiner. It would be greatly to the ultimate benefit, and welfare of the Patent Office, if some uniform scheme, or system could be devised, and adopted for imparting elementary instruction in the rudiments of office organization, and procedure, on his first entering the examining corps.

When a new assistant, and we have all been there, is assigned to a division, it should be remembered, and it is natural, that he is almost sure to have certain preconceived ideas, and opinions of invention and patents, which are erroneous, both as to law and fact. Some are in time overcome, others never completely, and it may be seriously doubted whether with any of us, the personal equation is ever entirely obliterated, however we may think so.

The almost universal practice in the various divisions, of putting a new assistant on examining work immediately, or within a week, before he has gotten his bearings, and when he does not yet recognize the distinction between a pending application, and a patent, or that between an interference proceeding in the Office, and an infringement suit in the courts, is obviously wrong. It is unfair to the assistant, and to the Office itself. A plan more effectual, expeditious, and satisfactory, so far as the real advancement of the work is concerned, would be to assign him to the clerk's desk, for at least six weeks, to assist in entering amendments, and the many duties daily attending that desk, in order to familiarize him with the rules applicable thereto, and the various clerical divisions of the Office, their jurisdiction, functions, and interconnecting relations, and at the same time to enable him to gain a working knowledge of the filing of the various papers in an examining division, as well as a general idea of the system of classification as practically demonstrated by the classes, and subclasses in his division, with which he will have to deal later on. With such a preliminary training, it is obvious that a new assistant could much more readily and intelligently take up examining work, than if he started in entirely in the dark and in complete ignorance of his duties, and of the Office procedure. The present general custom obviously must have a ten-

dency to create and implant in the mind erroneous ideas and impressions, which once adopted, it will be found extremely difficult, if not impossible, to eradicate.

A new assistant may be apt, bright, intelligent, and possibly brilliant; but before he recognizes clearly the distinction between abandonment, combination, division, forfeiture, renewal, revival, etc., he, not infrequently with the idea that it is a little above the dignity of his position to familiarize himself too intimately with the clerical and general Office work, proceeds to begin at the top and wrong end of the line, by diligently applying himself entirely to complex court decisions, hinging upon specific features and intricate points of law, with the result, that without necessary experience and elementary knowledge of patent law, he forms wrong impressions, and becomes imbued with the idea that orders, amendments, and purely Office matters are unimportant in themselves, and will be attended to by someone else. In this connection, I am firmly of the belief and opinion (and I do not think the statement is open to contradiction) that the value of the services of a competent and experienced examiner's clerk, if she, or he is up to the work of the desk, and has intelligent discrimination and judgment, can not be overestimated, and is most difficult to replace satisfactorily.

The first thing the average assistant can be relied upon to learn is how to dispose of a case by some short and expeditious route, without involving the apparent loss of time, which an exhaustive search of the art in the first instance necessarily involves. With this view, he takes up successively the question of getting the case transferred to another division, requiring division or rejection on the grounds of aggregation and lack of invention. The non-success of all these methods finally results in making necessary an examination of the art.

In rejecting a claim on the ground of aggregation, it is an easy matter to arm, and equip oneself with a vast array of decisions and authorities, that aggregations are not patentable, losing sight of the real question, whether, in a particular case before him, the claim is an aggregation, or a proper combination, though perhaps involving a mere substitution of one well-known equivalent for another.

Not infrequently, when a specification with the drawings are badly prepared, and confused, with claims extremely broad, vague and indefinite, the temptation is strong for an Examiner to make a general action, stating that the application is informal, unintelligible, and objectionable throughout, and thereupon to select one or two references which meet in terms the claims, and reject them. Such an action obviously does not in the slightest degree tend to advance the prosecution, but merely delays it. Many times, in cases of this kind, an Examiner through his knowledge of the art, but at the expense of some patience and a little time, can, by a careful reading of the specification in connection with the drawing, gain a complete understanding of the general features of the invention, and what it is intended to accomplish, and thereby be able to point out the particular part on which further information is necessary. At the same time he may intelligently search the nearest art, and consequently be able to reject the claims on the best references in the first action.

If a hasty action is made, the case, sometimes at the end of the year limit, comes back amended, not in the details as to which information is really needed, or with properly drawn claims, with the result that it will have to be examined precisely as if it were newly filed. New references will have to be cited, and another action made of record. So the prosecution is dragged, and continued, with the consequent delays, and possible interferences, until it is allowed or finally rejected; when the same result could have been attained with half the correspondence, if the first action had been as complete and thorough as possible.

When a specification is badly written, vague, and so indefinite as to make it impossible to act intelligently on the claims, it should not be objected to in its entirety, but the particular parts, and the operations thereof, on which further information is desired, and necessary, should be distinctly pointed out, thereby enabling an applicant to amend intelligently, and responsively, to the Office requirement. Sometimes, when this is not done, the applicant, or his attorney, intentionally or ignorantly, will make long amendments, with explana-

tions of features, which are perfectly obvious to the Examiner, while maintaining strict silence on the real and vital portions.

In each Office letter, every claim should be designated by number as allowable or rejected, and each reference should be cited by number as well as name, together with the class. A general rejection should not be made, such as stating that the claims are rejected on the references of record, or Smith and Jones of record. A great many future difficulties would be avoided if the words "of record," when used unqualifiedly in the rejection of claims, could be obliterated from the Patent Office vocabulary. On one occasion within the personal knowledge of the Examiner, an appealed case, which had been inherited from another division, and had never been acted upon in the new division, came up for action. The case originally contained a great number of claims, and had been amended many times, with the result of many changes in the numbering of old claims. On starting to answer the appeal, it was found that the claims were rejected on the references of record. On going back over the Office letters in an endeavor to find what references applied to certain claims, the same statement occurred throughout, with additional references added from time to time, and there were about fifty cited. After spending the greater part of a day in trying to find out what were the particular references, or combinations thereof, relied upon to anticipate the claims finally rejected, the attempt was given up in despair, and the applicant was informed that the appeal was premature. The claims were then rejected individually, the references applied, and the applicant informed why the references anticipated the claims. In the next action, the rejected claims were canceled and the case passed to issue.

Frequently a number of rejections are made on references which apparently meet the claims in terms, the applicant denying the pertinency of the references, or perhaps slightly amending, and the Examiner reiterating his rejection until finally the Examiner finds, by carefully reading the references and fully understanding them, that he was in error in rejecting some of them, and the

case is disposed of either by the Examiner withdrawing the references, or the applicant canceling the rejected claims, which could have been done previously with far less actions, if a little time had been devoted to the study of references before the first action.

Consideration of rejection on the ground of lack of invention, brings up the constantly recurring question of what is invention? After reading numerous court decisions based on specific cases, many of which have been quoted in previous lectures, and after searching the various authorities on patent law for a clear definition of this simple ground of rejection, I am forced to come to the conclusion that no definition exists and none ever *will* be formulated which will be an infallible guide in determining the question in each specific instance in any one of the numerous arts; and the same is true of aggregation.

If any one will discover, and give an accurate definition to guide the Patent Office in determining absolutely, and infallibly, by thumb rule, what this nebulous thing, invention is, its labors will be greatly reduced.

There are many authorities and decisions to the effect that a mere change of configuration, shape, or dimensions, is not patentable. While broadly this is true in the majority of cases, yet, if it were literally adopted, as an axiom, many inventors would be denied the protection which the patent laws are designed to afford for devices which may be of inestimable practical value and worth. Admittedly, it is obvious, and indisputable, that a mere change of form, or dimension in a structural feature which acts in the same manner, and produces the same result as in prior devices, without any new function, or unforeseen effect, is not patentable, and in fact, amounts to no more than the substitution of an equivalent.

Possibly it may not be a waste of time, and may be to a slight degree interesting to a few to refer in a general way to several patents illustrating the development of an art in which the question of invention hinged upon form, dimension, and apparent aggregation. If the rule held in all cases, that such changes do not involve patentability, many most valuable improvements in the

class of projectiles would never have been patented. Previous to 1905, it was apparently settled that a small arm projectile with a modern rifle, to have long flight, and penetration, must be pointed, but it was the opinion of experts that a short pointed head was a requisite. In other words, the pointed portion must be one-fourth or less, of the total length, because a long point would affect, and interfere with the ballistic qualities and spin, or rotation, causing the bullet to wobble, or tumble in flight, and thus destroy its accuracy.

With the object of increasing the range and penetration, Arthur Gleinich, a German engineer, applied for a patent for a bullet designed for use in small arms at high pressures and great velocities. Photographs of projectiles in flight at different velocities indicated the pointed nose as productive of the most desirable form of head wave for projectiles at high velocities, but it was apparent that any conclusion based thereon must be qualified by other requirements and conditions present as to flight, range, penetration and stopping effect, and these could only be satisfied by a proper construction of body, dimensions, distribution of mass, and form of body and head. Gleinich's experiments led him to the conclusion that a much longer pointed head than the one universally in use was necessary, and that the form for velocities in excess of 500 metres per second was one in which the head constituted about one half the total length. His bullet, in the language of claim 3 of his patent, is described as follows:

"A projectile having a pointed head of substantially one-half the total length of the projectile, curved upon a radius of four to nine fold the caliber."

In the early prosecution of the case, the Examiner failed to see any invention. He held that the device involved a mere change of form in the then existing bullet in common use. But after the filing of affidavits, voluminously setting forth in tabulated form the result attained in actual experiments with bullets, and showing the almost phenomenal increase in efficiency, as to range and penetration, amounting to from 15 to 25 per cent over that of the old form when used under similar

conditions, with the same explosive charge and type of fire arm, the Examiner reconsidered his action and patent 841,861, was granted January 12, 1907. Gleinich's contention and the practical value of his bullet were abundantly proved by its adoption by every civilized government and its use almost exclusively for big game hunting.

Of two engaged forces armed with the same rifle, one using the Gleinich bullet, and the other the old bullet, the former would be able to do effective execution at distances which would be beyond the range of the latter, who for all practical work, might just as well be armed at such ranges with spears or wooden guns.

Another device which has been equally far reaching in results, and in which the inventor's claim and contentions have been fully sustained by its universal adoption, is the projectile covered by patent No. 541,280, granted June 18, 1895, to E. M. Johnson of New York, on an application filed March 30, 1894, for an armor piercing projectile with a detachable soft nose cap. Johnson, in common with all ordnance experts, knew that the best form for an armor piercing projectile for flight and penetration was the conoidal pointed projectile in common use. But he found by experimenting and examining projectiles after firing, that as the hard point of a projectile strikes the surface of modern surface hardened armor, the point of the projectile becomes "upset" by the blow at the moment of impact, and thus loses the power of penetrating the softer metal underlying the hardened exterior. Reaching this conclusion, Johnson reasoned that if this upsetting of the hard point at the moment of impact with the hard surface of the armor plate could be avoided, and the shape of the point sustained and kept intact while piercing the hardened surface, then the projectile would penetrate the underlying softer metal and completely pierce the plate, so that if it were of explosive character it would have reached the point where it would do the most effectual damage prior to bursting or explosion.

Johnson's invention consisted in the simple expedient of enclosing the pointed end of the projectile in a soft metal, blunt, and solid ended nose cap. This at first sight appeared to experts to be fallacious and an apparent paradox. Its effect apparently would be to negative the

advantages of the pointed head in decreasing wind resistance, and seriously to interfere with the flight and trajectory, as it would undoubtedly be productive of an undesirable head wave; the very objection that the adoption of the conoidal head was intended to obviate. The Patent Office at first took this ground and rejected the claims for that reason, in connection with the art as it then existed. Johnson, however, by affidavits, supported with experiments, and notwithstanding the admitted objections, established the fact to the Examiner's satisfaction, that the employment of the blunt soft-nosed projectile secured a great increase in penetration over the non-capped projectile when fired under exactly similar conditions.

Having secured the best form for flight, and with a soft blunt nosed cap, getting the best penetration, the next thing to do was to combine both these features without counteracting the good qualities of either. To accomplish this result, Cleland Davis designed a hollow projectile contour cap, and filed an application April 21, 1908, resulting in patent 954492, granted January 4, 1910. His invention is described in the following language:

"It is now well known that there is a certain contour, or taper, which when given to the exterior of projectiles, causes them to meet with a minimum resistance from the air; and it is equally well known that this particular contour, or taper is not the best adapted for armor piercing qualities. In other words, if a projectile is given the best shape for piercing armor, it will not meet with a minimum air resistance during flight and if it is given the best shape for cleaving the air, it will not possess its best armor piercing qualities.

"My invention accordingly consists in providing a standard armor piercing or other projectile with a contour cap, which will during flight, give the projectile as a whole that contour best adapted for penetrating the air, and which upon impact is destroyed, thereby leaving the projectile with its best armor piercing contour unimpaired."

When Davis entered the field every element was separately, and in part combination, old. During the *ex parte* prosecution of the case, which was most diligently and persistently carried on by the applicant, the Examiner being impressed with the marked results attained, allowed claims for the three features in combination, and for the specific form of hollow contour cap per se. The Davis application, during its pendency in the Patent Office became involved in interference with a copending application which resulted in priority being awarded to Davis. The losing party acquired the rights of the Davis application, and subsequently to the grant of the patent, a rival company of the assignee was awarded a contract for furnishing several hundred thousand projectiles, the construction of which admittedly infringed the Davis patent. A suit was brought against the infringing company, decided September 10, 1914, in *Firth Sterling Steel Co. vs. Bethlehem Steel Co.*, 216 Fed., Rep., 753.

It is not thought inappropriate, and it may be instructive to quote a few extracts from this decision, as illustrating the court's line of reasoning, and the stand taken in sustaining a patent for a construction seemingly obvious to the average person unacquainted with the difficulties to be overcome, when the patent was attacked on the old ground of aggregation and lack of invention. The court stated:

“The type of projectile involved in the present discussion is the armor piercing projectile. If the doctrine that preparedness for war is a preservative of peace holds good, the inventive genius of the nation should be given every stimulus to apply itself in the direction here indicated. The history of the development of the art is in itself not uninteresting and throws light upon the points in controversy.

“The contest between armor piercing projectile producers and armor plate manufacturers is an approach to the old one between resistless force and immobility. The advance made by the armor plate makers made the task of the projectile designer include the achieving of two necessary results. The projectile must both reach the plate and pierce it. It must reach it to pierce it, and

must therefore have the property of long flight. It must pierce it when reached, and must therefore be given the greatest possible power of penetration. The property of prolonged flight was early found in contour of form, and could be reproduced at will. To overcome the tendency of the sharp point to upset or break, and thereby secure the greatest penetration, the Johnson soft nose cap, or jacketing the point was adopted. Thus to recapitulate, we had the contour of shape for length of flight known. We also had the property of fullest penetration secured. We had, however, no practical combined result, because the use of one of these known things was either to prevent or render futile the use of the other. No effective shot could as yet be fired, because if the flight contour was given the projectile, it would reach the mark, but would not do its work when there, and, if the penetrating device was employed, it could not do its appointed task because it would not reach its mark. The flight contour and penetrating form, although alike essential and required to be both potentially existing in the projectile when inserted in the gun, did not function simultaneously but successively. The one began where the other ended. If, therefore, a temporary flight form could be given the surface contour of the projectile which would inhere until the mark was reached, and would then be automatically discarded to make way for penetration form, the problem would be solved. There were two seemingly obvious means of its accomplishment. The one was to give to the enveloping metal which made penetration effective the form contour, which lengthened the flight. The other was to supply contour flight form by means of a hollow enveloping cap or casing which would be destroyed on impact. The seemingly obvious, however, is seldom true. Devices to accomplish the required result were tried, and the problem remained still unsolved. The solution was finally found which embodies the claims of the patent in suit. That it was at once attended with commercial suc-

cess is undoubted. The failure of the solid form of point encasing metal was avoided by abandoning its use. The cap which failed was one which inclosed the naked point of the projectile proper. Its failure was escaped by the simple expedient of retaining the soft metal nose feature within an enveloping shell or cap having the required flight contour. The design had inventive merit. Its merit is in a happy combination which produced the required result.

“To deny to the Davis design, the merit of combination, as defendant’s argument essays to do, is to refuse to follow the very definition of patentable combination. Most of the elements, indeed it may be said all the elements, except the idea of the combination itself, may be said to be old. Herein, however, lies the novelty, as well as the utility, and the consequent merit of what was accomplished. The aggregated elements were contour of flight, penetrating shape, supporting nose cap. Merely putting together these old elements produces at most the aggregated functions of them all. Bringing them into the contact of a mere aggregation may indeed destroy the operation of some of the elements considered separately, but the aggregated results can be no more than the sum of all. Its full product is a mathematical addition. A true combination produces a new and different, at least in the sense of an additional, result. The Davis device uses these old elements in a novel combination, not only were these elements, taken separately, old, but the idea of the combination was itself old. The failure of each of these attempted combinations consisted in the loss of function which the elements separately had. The flight function was retained, the ballistic quality was lost. The solid pointed soft nose doubtless failed because the mass of metal in front of the point destroyed its supporting function by crowding the metal which supported the point. The thought which saved the day was the simple one of combining with the other elements, not the hollow-nosed cap with the naked point of the projectile proper

but with the nose as well as the point. It is the simplicity of the combination which makes it look like mere aggregation. The Army and Navy experts had applied themselves to the task of doing just what Davis has done and failed. The prior art disclosed a cavity cap, into which the naked point of the projectile penetrated. It was able to show a projectile proper, in which the point was behind and surrounded with soft metal. It possessed no projectile as a whole in which there was interposed soft metal between the point and the cavity. In consequence, the Examiner allowed claims for the last and disallowed those for the first. He also disallowed claims for devices in which the soft metal was around, but not in front of, the point."

The Commissioner recently remarked that there were many persons, lawyers as well as laymen, who, while admitting the past usefulness of the patent system and its influence in the wonderful development of labor saving devices, and its consequent phenomenal effect on the country's industries, yet are sincere in their opinion that the present day conditions demand the substitution of a registration system. It, therefore, behooves every believer in the examination system, and especially those in this Office, conscientiously and impartially to carry out the duties imposed on them by law, and give every possible and legitimate aid to an inventor. If the time ever arrives in the future, when the general public, rightly or wrongly, views with suspicion the system, and believes that the Patent Office is antiquated, does not meet present conditions, that the examination is superficial, and that the grant of a patent is merely nominal, amounting to "a mere scrap of paper," then Congress, which is entrusted with enacting legislation for the public welfare, will seriously consider the question of abolishing the examination system. It will then be too late for the friends of this Office, by argument and reasoning, however well founded or based, on what the system has done for the public as well as individuals, to stay the tide of public opposition.

March 25, 1915.

**Foreign Patents and Foreign Applications
Mentioned in Sections 4886-4887,
Revised Statutes.**

A paper read March 25, 1915, before the Examining
Corps of the United States Patent Office

BY

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WASHINGTON, D. C.
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Foreign Patents and Foreign Applications Mentioned in Sections 4886 and 4887, Revised Statutes

By
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INTRODUCTION.

The object of this paper is a discussion of Sections 4886 and 4887, Revised Statutes, with regard to the foreign patents and foreign applications mentioned therein, and includes statements of the practice of this Office in cases which involve foreign patents, foreign applications and foreign publications.

In actions under Section 4886, it is important to know either the date of the foreign patent as a patent or its date as a printed publication or, possibly, both.

There is an essential difference between a patent considered either as a contract or a public document and a printed publication. The government may or may not disclose the patented invention by means of a printed publication, also the printed publication may have one date and the patent may have been signed, sealed and delivered on another date.

DATE OF PATENT.

In considering the patent date, it has been held that no patent exists until there is an actual grant of the monopoly in the invention by the foreign government.

Telegraph Co. et al. *vs.* Telephone Co., C. D. 1890,
p. 403.

De Ferranti *vs.* Westinghouse, C. D. 1890, p. 114.
Bell Telephone Co. *vs.* Cushman et al., C. D.
1893, p. 546.

Merrell-Soule *vs.* Milk Co., 215 Fed., 922.

The point is of no importance in so far as British patents are concerned, since they are all, with the exception of secret patents, published before they are sealed and since the earliest date is the controlling one, the sealing date of a British patent is of no importance under Section 4886.

With German patents, it has been argued that the effective date under Section 4886 is prior to the "ausgegeben" date, but the Court held, from the evidence before it, that there was no actual monopoly grant of patent rights until the "ausgegeben" date.

Merrell-Soule vs. Milk Co., 215 Fed., 922.

It may be noted that the "erteilung" or bestowal of the German patents is published in the Patentblatt and in the Reichsanzeiger two weeks prior to the "ausgegeben" date and that the numbers of German patents do not run according to the "ausgegeben" dates but are given numbers as of the date of "erteilung."

In Austria, the lapse of time between the date of "erteilung" or bestowal, as indicated in the Patentblatt, and the "ausgegeben" date is about six weeks. The "ausgegeben" date has been uniformly held in this Office to be the effective date under Section 4886.

Printed copies of Swedish patents are on sale about nine days after the patent grant, according to Singer's—*Patent and Trade-Mark Laws of the World*.

The date of grant of Dutch patents which have been received by this Office since June, 1913, is indicated in the heading by the word—"Dagteekening."

The word "Udstedt" in the heading of a Danish patent indicates the date of grant or issue.

Concerning Swiss patents, it has been held that the date of registration thereof, giving it a number, is of no avail unless the patent is printed and published and that the date of publication is controlling.

Roschach vs. Walker, C. D. 1899, p. 157.

In this connection, it might be well to state that the heading of a Swiss patent gives only the date of filing of the application.

The grant of the patent is indicated in the Swiss Patent Liste, which is published twice a month and gives a list of patents granted and refers to the date when printed copies may be obtained. The information obtained from the Swiss Patent-Liste as to the exact dates of grant and publication is not sufficiently definite and it would seem worth while to induce the Swiss government to print, in the heading of the patent, the date on which it was granted, and the date on which it was published.

This suggestion applies with nearly equal force to the British patent specifications.

A German Gebrauchsmuster patent is a patent within the meaning of Section 4886.

Law Examiners Decision in *Sexton vs. Reis*, Interference No. 37,770.

In the case of *Robin vs. Muller et al.*, C. D. 1904, p. 569, the Commissioner said that the effective date of the French patent 3628 is May 23, 1900, the date of grant and delivery, because it was established that this foreign patent was granted and delivered prior to any date alleged by Robin and in view of the French law then in force, that as such patents were open to the public, it must be held that this French patent 3628, and addition, was not a secret patent and that its grant and publication are a bar to the issue of a patent to Robin.

In the case of French patents prior to 1902, I am informed that the *delivré* date is the only one available.

I am informed, from a copy of a letter of a French agent in a pending case, that the filing date of a French application is the date of the signature of the ministerial decision recognizing the regularity of the application and indicating the patent numbers. From this date, the application may be inspected upon the payment of a fee, though no copy may be made. The deliverance of the patent is advertised in the official Bulletin of Industrial and Commercial Property and since June 19, 1913, the public may obtain copies of the specification and drawings on the payment of a fee.

The date of publication is indicated in the official Journal some weeks in advance and every one knows exactly

from what date they will be able to secure a printed copy of the patent.

In the case of *Schoerken vs. Swift et al.*, 7 Fed., 469, the Court said that the word "patented" as used in Section 4886 would seem, from the significance of the word, to mean only inventions laid open to the public and protected to the inventor, but the case turned on the question of evidence, the Court holding that the French patent which was not published, was not a secret patent because a certified copy of the patent was presented in evidence, and that a copy of a secret patent could not be obtained. The Court held that the French patent was a patent within the meaning of the law, and would operate as a bar.

Judging from the decision in the cases of *Schoerken vs. Swift*, and *Robin vs. Muller*, cited, and the letter of the French agent, a French patent is a reference under Section 4886, as of the date when the patent is delivered and open to the public. I am not prepared to say, from the information at hand, that this is the *delivré* date, especially when the uniform practice in this Office has been to use the *publié* date.

Still, if there is an actual grant of the monopoly of an invention in France as of the date of delivery appearing on the heading of the patent, the *delivré* date is the controlling one.

To use the patent date effectively under Section 4886, the invention must be actually patented, i. e., covered by the claims of the patent, if the patent has claims.

The question of the identity of the invention patented is taken up later in connection with the discussion of Section 4887. The word "patented" means the same thing in each section.

Queen vs. Friedlander, 149 Fed., 775.

It is hoped that authoritative directions may be given as to the effective dates under Section 4886 of all foreign patents as patents, and as printed publications, and that provision be made for printing these dates on the headings of all foreign patents which are received by this Office.

While the date of foreign letters patent has always

been considered the controlling one, irrespective of the date of publication, and whether the patent was a printed publication or not, it is suggested that this is an undue hardship on American inventors, who, while not being charged with notice of public use of the invention abroad, are barred from receiving a patent in this country on an invention patented in a foreign country more than two years prior to the filing date of their applications here, whether the foreign patent is a printed publication or not.

For instance, though no amount of public use in Italy would bar an inventor from obtaining a patent in this country, he might be barred by an Italian patent, the contents of which can only be learned by sending to the Italian patent office for a certified copy of the letters patent. Italian patents are not printed publications.

The only knowledge derived from foreign sources which *should* operate as a bar under Section 4886 by way of dedication to the public of this country, is that obtained from printed publications.

However, as the law stands, a foreign patent may be a bar under Section 4886, whether the subject-matter thereof is disclosed in a printed publication or not.

Sirocco vs. Sturtevant, 220 Fed., 137, citing *Ireson vs. Pierce*, 39 Fed., 795, and *Bell Co. vs. Bevin*, 73 Fed., 469.

SECRET PATENTS (SECTION 4886).

It was intimated in *Schoerken vs. Swift*, cited, that a secret patent is no bar under Section 4886 to the issue of a patent in this country.

In *Robin vs. Muller*, the Commissioner said that while a prior foreign patent under Section 4886—Revised Statutes, is a bar to the grant of a patent in this country, an apparent exception exists under the authorities where the foreign patent has been kept secret.

Again, in *Brooks vs. Norcross*, 2 Fischer, 661, the court said, speaking of the word "patented" as it occurred in Section 7 of the Patent Act of 1836, which is similar to Section 4886 of the Revised Statutes, "the word 'patented' as here used must of course mean covered and made known to the world by a public patent, so as to

bring home to the public generally, and probably, a knowledge of its existence and deprive any one of the credit and protection of being original, if he afterward construct a like machine. . . . Nothing can be within the spirit of the law except what is public and thus known. The Court held that novelty is not negatived by any prior private patent granted in a foreign country.

The only secret patents, of which I am aware, that are received by this Office, are those British patents upon which the ban of secrecy has been removed. These will be considered later, in the discussion of British procedure.

SECRET PATENTS (SECTION 4887).

While it has been said that the word "patented" means the same thing in Sections 4886 and 4887 (*Queen vs. Friedlander*, 149, Fed., 775), a secret patent, while not a bar under Section 4886, will probably prevent an applicant from receiving a patent in this country under the conditions stated in Section 4887.

In the case of *De Florez vs. Raynolds*, C. D., 1880, p. 289, the court said:

"We fix the date of Nov. 27, 1862, and not the date of Feb. 20, 1863, because we regard it as the clear intention of the provisions of the law limiting the duration of a United States patent, patenting an invention previously patented abroad to the same inventor, to give the patentee a specified term from the date at which his foreign patent took effect as a foreign patent in his favor. . . . This view is not necessarily applicable to a case where a foreign patent to one inventor is set up to defeat a United States patent to a different inventor. In such case, the manifest intention of the law is that a foreign patent shall apply only as of a date when the invention was published or was accessible to the public and not of an earlier date from which the inventor may have enjoyed the benefit of the foreign patent as a patent."

The decision in this case was quoted with approval in the opinion of the Secretary of the Interior in the case of

Rumpff et al. *vs.* Köhler *vs.* Krügener, C. D., 1883, p. 111.

The question of the secrecy or publicity of an Austrian patent can not under Section 25 of the Act of 1870 affect the duration of a patent for the same invention in this country.

Elec. Co. vs. Arnoux et al., 17 Fed., 838.

Section 30 of the British Patent Act provides for what are known as secret patents on instruments or munitions of war. The patent is assigned to the Secretary of State for war, or the admiralty, who may certify to the controller that, in the interest of public service, the particulars of the invention should be kept secret. If the benefit of this section is waived at any time by the Secretary of State, or the admiralty, the specifications shall thenceforth be kept, and dealt with in the ordinary way.

The sealing of such a patent is not published in the official Journal, but when the benefit of the law is waived by the Secretary of State, or the admiralty, the specifications are published and the date of publication is given in the heading thereof.

While the controlling date of such a patent under Section 4886 is the date of publication, it is effective, nevertheless, as a bar under Section 4887 as soon as patented. The date of the application is determined as hereinafter stated, according to the character of the application.

CITATION OF FOREIGN PATENTS.

In *Robin vs. Muller*, cited, it was held that where the date and contents of a foreign patent are proved, the burden is upon the party against whom it is used, to show that it was not published or open to public inspection on the date which it bears.

Also, in the case of *Hummel vs. Tingley*, C. D., 1900, p. 2, the Examiner cited a foreign patent as a reference. It appeared upon its face that it was issued at a date prior to the filing date of the application under consideration. It was contended by the applicant that the foreign patent was not granted at the date shown on its face, but it was held that when a foreign patent is cited, the

burden is shifted to the applicant to prove that said patent was not entitled to the date which made it effective as an anticipatory publication.

Where an application was rejected on a foreign patent, Held, the Examiner properly refused to withdraw the patent as a reference in the absence of an affidavit by the applicant, fully identifying it as his own or filed on his behalf, with his knowledge and consent.

Ex parte Wlost, C. D., 1911, p. 57.

In addition to the data required to be given by Rule 66, the Examiner, when citing foreign patents, will include a statement identifying the particular figures of the drawing relied upon as a showing of the anticipating structure. If the drawing of the foreign patent comprises a single sheet, the Examiner will say "(one sheet)." If the drawings on the foreign patent, as issued, comprise more than one sheet, the particular figures and numbers of sheets will be indicated.

The purpose of this order is to give applicants and attorneys information respecting foreign patents cited as references, so that photographic copies thereof may be ordered without unnecessary correspondence and delay.

Order 2096, Jan. 21, 1914.

FOREIGN PUBLICATIONS.

It has been held that the so-called publications made in the British Official Journal and the German Imperial Gazette concerning applications for patents, and the laying open of such applications to the public inspection, do not constitute either publications of, or patents for, the inventions involved. *Parkins vs. Jenness*, 1893, C. D., p. 64.

The practice in Austria, however, differs from that in England and Germany in that the Patentblatt does more than merely identify the application. It publishes a description of the invention itself, but is without drawings, and while it is doubtful if such a disclosure in many cases would be operative as a publication under Section 4886, it is possible that in some cases, the invention would be described with all the necessary clearness.

The disclosure, to be effective for this purpose, should enable one skilled in the art to practice and fully understand the invention without experimentation, and must be as definite as specifications for patent in this country.

Badische Fabrik vs. Halle, 94 Fed., 163.

Mattress Co. vs. Whittlesley, Fed. Cas., 18058.

Western Elec. Co. vs. Tel. Co., 88 Fed., 505.

The date of publication, "offentliggjort" is at the end of a Swedish specification, while in the case of Norwegian patents, the "offentliggjort" date is in the heading.

The dates of publication of Dutch and Danish patents are found in the headings thereof by the expressions—"Oetrooischrift uitgegeven" and "Bekendtgjort," respectively.

QUESTIONS ARISING UNDER SECTION 4887

The most important questions arising under Section 4887 regarding the word "patented" are the date of the actual patent grant, the identity of the invention patented, and the identity of the patentee.

In order to operate as a bar to the grant of a patent in this country, the foreign patent must be actually issued under the seal of the foreign government.

Bell Telephone Co. vs. Cushman, C. D., 1892, p. 546.

In the case of any country, excepting Great Britain, if we have a copy here we may be assured that the patent has been granted.

In the case of British patents, there is a wide variation possible in the date of sealing and since the specification and drawings are usually printed and ready for public distribution two or three weeks after the acceptance of the complete specifications, the receipt in this Office of the printed copies of the specification and drawing is no evidence that the patents have been sealed.

There is no indication on the heading of a British patent specification as to its sealing date and it is important that this be known.

It is also important to know the actual or effective

filing dates of British patents because of the complications arising under the British practice. For this reason, a separate consideration is given of the British practice in so far as it may influence our practice under Section 4887.

The sealing of a British patent takes place according to the statute as soon as may be, and not after the expiration of fifteen months from the date of the application. Section 12-2—British Patents & Designs Act.

There are four exceptions to this rule, however, nineteen months being allowed where an extension of time was allowed in which to leave the complete specification and the period is extended also in the case of the death of the applicant, or neglect to pay the required fees, in which cases, the patent may be sealed any time within twelve months after his death, Section 12-3, or the period may be extended on the payment of fees, Section 12-4. Also, when an appeal has been taken, the patent shall be sealed at such a time as the law officer may direct. Section 12-2.

The date of sealing, if the patent has been sealed, may be learned on inspection of the British Official Journal in the Library.

In this connection, it may be stated that the contents of this Journal are:

- 1st. Applications.
- 2d. Specifications accepted.
- 3d. Specifications open to public inspection before acceptance.
- 4th. Patents sealed.
- 5th. Printed specifications published.
- 6th. Patents void.
- 7th. Applications abandoned.

There are cases arising under Section 4887 in which the applicant acknowledges the filing of a patent application in a foreign country more than twelve months prior to the date of filing in this country. A valid patent could issue on the domestic application, provided that there has been no previous grant of the foreign patent.

When, therefore, such an application is ready for allowance, the applicant should not be required to prove that

the British patent, for instance, has not been sealed and unless the grant of the patent is noted in the "Official Journal" before referred to, the case should be passed to issue (Commissioner's Order No. 1226, Sept. 6, 1898). This order was issued under the old seven months rule, but the same practice prevails under the present law, allowing an interval of twelve months between the filing of the domestic application and the filing date of the foreign application.

To hold up such a case, if the applicant has planned to have his foreign patent issue on a certain day, might result in the issue of his foreign patent which would then be a bar.

It is sometimes important to decide the effective filing date of a British application and the printed specifications of British patents take so many different forms that it is deemed advisable to give them some consideration.

Under Section 16 of the Patents and Designs Act, several provisional specifications, if they cover cognate inventions, or modifications, may be consolidated by filing a single complete specification to cover the same. The date of a patent granted on such an application is the date of the earliest of such provisional specifications but in considering the validity thereof and for the purpose of the act with respect to oppositions to the grant of a patent, the Court or Comptroller shall have regard to the respective dates of the provisional specifications relating to the several matters claimed therein.

Also, under Section 6, sub 2 and 3, where there is a departure in the complete specification from the invention disclosed in the provisional, the provisional specification may be canceled, or where there is matter common to the two applications, the comptroller may allow the original application to proceed so far as the invention included both in the provisional and the complete specifications is concerned, and treat the claim for the additional invention included in the complete specification as an application for that invention made on the date at which the complete specification was left.

In the case of *In re Swinburne*, C. D. 1902, p. 537, it was held that, for purposes of Section 4887, Rev. Statutes,

the date of an English application was the date of filing of the provisional specification. Under the English law at that time, however, no departure was allowed in the complete specification from the invention disclosed in the provisional. Any departure would render the patent void.

Ex parte Smith, C. D. 1898, p. 275.

Hence, *In re Swinburne* should be applied in the light of British law as it now stands, and it has been held that where the provisional specification was canceled under provisions of the act, the date of the British application for purposes of Section 4887 is the date of the complete specification.

Ex parte Hayes, 209 O. G., p. 317.

When there has been a consolidation of provisional specifications, as before mentioned, the date of the application for the purposes of Section 4887 is the date of the earliest provisional specification disclosing the invention.

Where there is a departure in the complete specification from the invention disclosed in the provisional, and the provisional has not been canceled, the controlling date of the application for the new matter is the date of the complete specification.

Some British patents, when the complete specification involves a departure from the invention disclosed in the provisional, have a peculiar heading, in which two dates are given. The patent granted in such a case is given the old serial number, but redated to indicate the filing date of the complete specification. For instance, in the provisional specification filed July 12, 1912, and numbered 16334, the complete specification was filed February 12, 1913, and the patent redated.

The heading on the drawing appears:

A. D. 1913, Feb. 12, No. 16334¹²—the exponent showing that the provisional specification was filed in 1912.

The complete specification is found in the bound volume for 1912.

Also, where the application is divided the heading

assumes a similar character. For instance, the application 19537 of 1912 was filed August 26, 1912, and divided, the parent application going to patent as No. 19537 of 1912. The divisional application became patent No. 5020 of 1913, and bore this heading:

A. D. 1912—Aug. 26, No. 5020¹³.

The exponent in the case indicates the date of filing of the divisional application. The effective filing date of the application would appear, however, to be August 26, 1912.

When British applications are abandoned they are usually not published and knowledge of their abandonment may be obtained by inspection of the Official Journal.

The only apparent exception to this is where an applicant has claimed the filing date of the application in a foreign country under the convention. These applications are open to public inspection twelve months after the filing of the provisional specification, whether the complete specifications are accepted or not. If they become abandoned, they are printed and published about fifteen months after the filing of the application.

FOREIGN APPLICATION AS A CONSTRUCTIVE REDUCTION TO PRACTICE.

It may sometimes occur that an applicant will claim, under Section 4887, as a constructive reduction to practice, in order to overcome a reference, or for some other reason the filing of an application in a foreign country, which application has become abandoned. It would seem, under the statute, that the United States application should have the same effect as if it were filed in this country on the same date, that the foreign application was filed and the abandonment of the foreign application would be immaterial. The question of abandonment does not enter into the matter at all.

Metallurgic Co. *vs.* Whitman, C. D., 1910, p. 405.

Whitman *vs.* Hearne, C. D., 1910, p.—.

Where F. filed an application in the German Patent Office on June 23, 1905, and on October 28, 1905, an amended application was filed, accompanied by drawings, which was a complete description of the invention embraced in the issue, and was not a departure from the original application, and a complete application was filed in this country on June 19, 1906, held, that F. is entitled to the date of his amendment (October 28, 1905), as the date of his constructive reduction to practice.

Bissel vs. Föttinger, 212 O. C., 689, Court of Appeals, D. C.

When there is a lapse of more than twelve months between the filing dates of the domestic and foreign applications, the United States applicant can not get the benefit of the filing date of his foreign application. *Muller vs. Lauber*, C. D., 1903, p. 387.

PROOF OF FOREIGN APPLICATION.

But no benefit can be secured by the filing of a foreign application by a mere allegation to that effect. Such applications must be proved, though proof need not be given until some occasion for it arises, *Ex parte Pauling*, 1905, C. D., 131. Where an applicant claims the benefit of the filing of an application in a foreign country for the purpose of overcoming a reference, his affidavit, filed under the provisions of Rule 75, should be accompanied by a copy of the original foreign application, certified to by the patent Office of the country in which it was filed, and if it is not in the English language, a sworn translation, made by the official translator of *this* Office. If the application was not made by the inventor himself, applicant's affidavit should also state that the application in the foreign country was filed for his benefit, and that such a procedure is permitted in the foreign country.

Ex parte Barthels, C. D., 1912, 171.

Translations certified by a consular or diplomatic officer of the United States have always been accepted.

A divisional application takes the date of the patent application in so far as a previous foreign patent under Section 4887 is concerned.

Ex parte Scott, 1901, C. D., 42.

The same is true of an application which is a continuation of an earlier United States application, the latter being filed within the statutory period of twelve months.

Struble vs. Young, C. D., 1906, p. 37.

In one case, the Commissioner said that while it had never been decided by the courts whether a patent granted in this country for an invention previously made the subject of a German Gebrauchsmuster was limited by the term of the latter, the date of the Gebrauchsmuster *should be given in the specification*, the question of limitation being left to the courts.

Ex parte Gillie, C. D., 1898, p. 148.

The Board of Examiners-in-Chief has held however that a Gebrauchsmuster was a patent within the meaning of Section 4887, and that the Gebrauchsmuster application was an application for a patent within the meaning of this section.

Munster vs. White, Appeal No. 1021, Interference 25665.

This is contrary to the decision in *Steiner vs. Schwarz*, 148 Fed., 868. The information presented to the court in that case as to the character of a Gebrauchsmuster patent does not, however, appear to have been complete.

A foreign application filed before the adherence of the foreign country to the convention is of no avail under Section 4887, as a constructive reduction to practice.

Winter vs. Latour, C. D., 1910, p. 408.

COMPLETE APPLICATION IN THIS COUNTRY.

In *Ex parte Sassin*, C. D., 1906, p. 205, where the preparation, execution and filing of an application by an attorney were authorized by a power filed with the

original papers, and subsequently to the filing of the original papers, new papers were filed duplicating the original papers, except that they were executed by the inventor, and the case was thereon given a serial number and date as a complete application. Held, a request that the earlier date be given as the filing date of the application in order to avoid the bar of a foreign patent can not be granted.

The present practice seems to be as follows: Applications executed by the attorney are received at the present time and action given on the merits. Whether subsequently filed papers, executed by the inventor himself can be tied to those filed by the attorney is left for the courts of last resort to determine. *Ex parte Tropenas* (90 O. G., p. 749), to the contrary notwithstanding, it is believed to be a possible construction of Section 4887, that its requirements may be satisfied by the filing of applications executed by an attorney.—Letter of the Commissioner of Patents, *Scientific American*, Sept. 26, 1914.

IDENTITY OF INVENTION.

In considering the identity of the inventions patented in the foreign country, and covered by domestic application, recourse is had to decisions made under the old law of 1870, Section 4887, whereby the term of a United States patent for the same invention to the same inventor was limited by the term of the foreign patent, so that the United States patent expired with the latter.

The object of present Section 4887 seems to be the same as the old one, though it accomplishes its object in a different way.

In the case of the *Bell Telephone Co. vs. Cushman*, C. D., 1893, p. 546, and Circuit Court for the Northern District of Illinois said "it seems clear to me that the meaning of our own statutes is to limit the term of monopoly so that it shall exist no longer than a previously granted monopoly abroad."

In considering the other decisions, it must be remembered that Section 4886, Revised Statutes, allows a disclosure of the invention in a printed publication providing it is not prior to the date of invention nor more than

two years prior to the date of the United States application. I can see no difference in principle whether this publication be the printed specifications of a foreign patent or some other publication.

The word "patented" then in Section 4887 must mean something more than mere disclosure, and the following decisions seem to sustain the view that there must be an actual grant of monopoly rights in the invention by the foreign government, in order that the foreign patent may be a bar under this section.

In the case of *Westinghouse vs. Stanley*, 138 Fed., 823, the Circuit Court of Appeals for the First Circuit, held that the words "patented or caused to be patented" in Section 4887 refer to the invention actually covered by the claims of the foreign patent. It is not sufficient that the foreign patent disclose the invention unless it be issued in a country wherein the patents have no claims. *Western Elec. Co. vs. Tel. Co.*, 106 Fed., 215 (Circuit Court, Western District of Michigan).

The description of the invention in a foreign patent might affect the validity of a domestic patent and might not, but it is only a patent for an invention that has been previously actually patented in a foreign country that is limited by the foreign patent.

Elec. Co. vs. Alarm Co., 22 Fed., 341.

A test to determine the identity of the inventions in the foreign patent and in the domestic patent is announced by the Circuit Court of the United States for the Southern District of New York in the case of the *Accumulator Co. vs. Elec. Co.* C. D., 1893, p. 437. This test is—"could both patents have been granted in this country?"

If any of the claims of the United States patent include any substantive part to the invention on which an independent claim might be founded, shown in a prior foreign patent, the former expired with the latter, and when the foreign patent contains no formal claims, it will be presumed that the law of the country does not require them and the specifications and drawings will be looked into for the purpose of determining the matter of invention.

Western Elec. Co. vs. Tel. Co., cited.

It has been held by the Supreme Court of the United States in *Leeds et al. vs. Victor*, 1909, C. D., p. 536, that a claim for a process and a claim for an apparatus by which the process is performed are distinct inventions, and the United States patent for one does not expire under Section 4887, Revised Statutes, by reason of the expiration of a foreign patent for the other; also, that a combination of elements is an invention distinct from one of the elements thereof and a United States patent containing claims for both does not expire, as to the combination claim, by reason of the expiration of the foreign patent covering one of the elements.

If the court is convinced that it was not intended to patent the invention abroad, the court will not, by construction, broaden the language of the foreign patent so as to destroy the domestic patent when that language is capable of a construction which permitted the domestic patent to live. (Circuit Court of U. S. for Southern District of New York, *Elec. Co. vs. Accumulator Co.*, C. D., 1891, p. 477.) The court said in this case, that it was not easy on principle to comprehend why a meritorious inventor who is a citizen of this republic should lose his rights at home because he has tried to protect them abroad.

A similar argument was advanced in the case of the *Refrigerating Co. vs. Sulzberger*, 157 U. S., p. 1, and the Supreme Court of the United States, answered in these words:

“Much has been said about the intention of Congress, as manifested by its legislation, to deal liberally with inventor, especially those who were citizens of the United States. *This* is true. But it is for Congress to prescribe the conditions upon which it will secure to inventors the exclusive right to their inventions. What may be due to inventors is a matter about which there may well exist differences of opinion. It is the province of the legislative branch of the Government to say when a patent to an inventor shall expire, and, therefore when the public may enjoy, without charge, the benefit of the invention covered by it. We can very well understand how

the existing statute may, in some circumstances, operate injuriously to an American inventor who, in addition to the exclusive rights granted to him in this country for the term of seventeen years, wishes to secure a monopoly for his invention in other countries; for, if he obtains foreign patents for his invention before obtaining one here, the American patent is limited by law, whether it is so expressed or not, in the patent itself, to expire with the foreign patent having the shortest term. This is the case as it appears from the standpoint of the patentee without regard to the interests of the American public."

But it is to be remembered—at least it may be assumed that Congress was advised—that action by the Patent Office upon applications for patents was often unduly and purposely delayed by applicants until they could reap the full benefit of the monopoly obtained by them in foreign countries before taking out an American patent. "In the meantime," the Commissioner of Patents, in his annual report, as late as 1887, said—"they (applicants for American patents) are engaged in manufacturing and putting upon the market the article or improvement, but warning the public that a patent is applied for, the effect of which is to give them absolute control and monopoly of the invention and to deter all other inventors from entering upon the same field of invention and from manufacturing the article. . . . These considerations . . . are referred to only as showing what Congress may have had in view when it provided, as it did, that an invention covered by a foreign patent, obtained or caused to be obtained before an American patent is granted for the same invention, should be free to the American public as soon as it became by reason of the expiration of the foreign patent free to the people of other countries. If this principle operates harshly upon inventors in certain cases, it is for Congress, whose discretion is not subject to judicial control, to make provision for these cases, if it be possible to do so without such injury to the people of our country as ought not to be inflicted upon them.

According to the case of the Elec. Co. *vs.* Accumulator Co., cited, the thing patented abroad must be the same in all essential particulars as the thing patented here, and the subject of the foreign patent must, if made at home, be such as to constitute an infringement of the home patent.

In the Mfg. Co. *vs.* Canning Co., C. D., 1886, p. 409, the United States Circuit Court for the Northern District of Illinois, said that a fair test to determine whether an American patent is identical with or included in a prior foreign patent to the same inventor is to inquire whether the use of the precise process described in the foreign patent after the grant of the American patent would be enjoined as an infringement of the latter.

The infringement test is not a reliable one however, as stated by the court in the case of Westinghouse *vs.* Stanley cited. There might be infringement even though the inventions were different.

It would seem from the decisions cited, that in order to bar the grant of a patent in this country under Section 4887, the foreign patent must actually cover the same invention sought to be covered by the domestic patent, or some substantive part thereof. It would not seem sufficient that he *might* have covered it in the foreign patent. A structure made according to the foreign patent should infringe the domestic patent if the former is to be held as a bar under Section 4887. The breadth of the claims is immaterial in determining the question of identity.

If an applicant would be entitled to a patent on only one of two United States applications, one for the subject-matter of the foreign patent and the other for the subject-matter of the United States patent, then the inventions of the patents are identical.

The fact that the foreign patent covers the process and the domestic patent covers the product does not indicate conclusively that the inventions covered are different. They may be in fact the same, if the product can only be made by that process.

Accumulator Co. *vs.* Elec. Co., cited.

IDENTITY OF PATENTEES.

The opinion quoted from the case of *The Refrigerator Co. vs. Sulzberger*, indicates that, under Section 4887, the foreign patentee and the United States applicant must be the same or in privity with each other, for as a general rule no applicant is barred from receiving a patent in this country because of a prior foreign patent unless it is of a date prior to his invention or more than two years prior to the date of his application in this country.

It has been held, that if the foreign patent was not granted to the United States patentee, nor applied for with his knowledge or consent, then the expiration of the foreign patent would not cause a lapse of the United States patent.

Willeox et al., vs. Mfg. Co., 110 Fed. 210.

Kendrick vs. Emmons, C. D. 1876, p. 284.

The case of *Willeox* was reversed in the appellate court, but upon what grounds, I am unable to determine.

However, I think it may fairly be concluded that under the terms of Section 4887 the patentees must be the same or in privity with each other.

In the case of *Metallurgic Co. vs. Whitman*, C. D. 1910, it was held, on the evidence taken in connection with the application itself, that the presumption is justified, that under the German law, it is permissible to file an application in the name of the assignee.

MISCELLANEOUS.

In computing the time under Revised Statutes, Section 4887, as amended by the act of March 3, 1903, the day upon which the application was filed in the foreign country is excluded, and where such an application was filed on February 23, 1903, an application filed in this country February 23, 1904, was in time.

Hess-Bright Co. et al. vs. Roller Bearing Co., C. D. 1909, p. 266.

In conclusion, I think it would not be amiss to make the request that there be provided somewhere in this Office, copies in English, of the patent laws of all nations whose patents are received by this Office, and authoritative publications of the decisions construing these laws to the end that actions arising under Section 4886 and 4887 involving foreign patents and foreign applications may be taken with certainty.

April 1, 1915.

The Relation of "Novelty" and "Invention" to the Citation of Art

A paper read April 8, 1915, before the Examining
Corps of the United States Patent Office

BY

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The Relation of "Novelty" and "Invention" to the Citation of Art

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This paper will endeavor to discuss briefly the relation of "invention" and "novelty" to the citation of art. That is, to consider how far it is advisable, or perhaps even legally proper, to refuse to cite art against a claim when the question is only one of "novelty" or "invention."

The question is not concerned with division, multiplicity of claims, incomplete combination, inoperativeness, lack of utility, lack of disclosure, new matter, abandonment of the invention, vital indefiniteness of the claim, or failure to define an invention in one of the statutory classes. It will be assumed that none of these causes of rejection exists.

It has always been the practice in Division 39 to assume that when a useful, operative, complete thing has been devised, some problem has been solved; as Robinson reiterates, something has been devised to satisfy a want believed by the deviser to exist.

Further, that there exists among those fully skilled in the art concerned what may be called a certain "sum of information" as to properties and capabilities in the things related to the art; information derived from study of these things in their separate and collective activity.

The "sum of information" possessed by the deviser may be very much smaller than that possessed by those fully versed in the art, so that he may in all honesty become an applicant for a patent when he is not entitled to it, even though he may have performed an act of in-

vention considered with reference to his own "sum of knowledge."

In investigating the question of patentability of such a presented thing, the things known to those fully skilled in the art, whether they are elements or single steps or subcombinations, are considered, not as the bare things themselves, but as those things with their known capabilities and properties. And just as a chemical element or subcombination may be represented, not by its symbol or symbols alone, but in addition by the conventional radiating lines to indicate known properties and capabilities of the elements, etc., so a mechanical element or subcombination is conceived of as bearing such lines.

If now, for example, one known mechanical element is combined with another in an operative device, one or more of these lines become bonds, and define the cooperation between the elements. The properties and capabilities represented by the inactive lines, that is, those which do not become bonds, are not concerned with the combination, as such, however valuable such inactive properties may be when the element is used in other combinations wherein they become bonds. In the well-known McNeil case, 100 O. G., pages 1976 and 2178, there were recited or implied certain features of a new stitcher which did enter into the combination with a trimmer, and certain other features of the stitcher which did not in fact enter into the combination. The art showed a combined stitcher and trimmer with equivalent bonds though not with lines equivalent to those recited, but which did not affect the combination. These latter lines were properly ignored, and S-T was decided to be the equivalent of S'-T, the hyphen representing the bonds.

As is clearly set forth by Robinson in his long discussion of novelty, a claimed thing may have its equivalent in a single known thing, or in that thing modified within the art, or in a thing made up of elements or subcombinations existing in the known art and chosen and cooperatively arranged within mechanical skill.

The "sum of knowledge" belonging to those skilled in an art and the manipulation of its material within mechanical skill are the property of the public, or of some patentee, and to pass eventually to the public; and a pro-

duced thing which rises within the territory of that perpetual monopoly can not create a new monopoly.

Thus, let us assume in a valve application a combination claim to a specific form of reciprocating valve stem, and a specific form of indicator to represent the immediate height of the stem. Graphically this could be represented by S'-I'. Such a combination might be unpatentable in view of the simple combination S-I alone, or that simple combination modified by substituting for one or both of the simple elements in that basic patent, corresponding elements with equivalent primes and old in the art, or even by a joining for the first time of these prime elements or their equivalents, such union being within the art. That is, in the last condition, it may even be proper to choose as the basic patent one showing less than the number of elements, and add to that element or elements to produce the greater number. *Ex parte Perkins*, 88 O. C., page 548. Thus, if no vertically moving valve-stem had ever been combined with a height indicator, a claim to the combination might properly be rejected on reciprocating valve stem alone since it would involve no invention to add an indicator in view of, for example, a float carrying a reciprocating stem, the latter provided with a height indicator. That is, it is sometimes proper, and a clearer action, to cite as the basic reference a thing which has the defect which the applicant has cured, and show that no inventive act has been performed in the cure because an equivalent defect has been cured in an equivalent way, in a thing so nearly like that in the application that the transfer of the cure does not involve invention. Such an action sometimes results in a clearer issue than, for example, the citation as a basic reference of the combined float and indicator, and the substitution of a valve-stem for the float. This collecting is sometimes called by applicants, "building," and its propriety should be clear, because the burden of showing lack of invention is heavier. All such actions are only applications of the doctrine of equivalents, and may be extended to elements or to combinations of any number of elements. And nearly all inventions may be classed as combinations in a way, since nearly all product claims recite a combination of features.

Of what wide range is this doctrine of equivalence may be seen by the following quotation from Robinson's great work.*

The quotation as to equivalents is in Vol. I, on page 339:

“Similarity in individual character does not create, nor does diversity in individual character destroy equivalence between such acts and substances as are thus capable of substitution for each other. However unlike in name, shape, size, capacity, proportions, arrangement or material they may appear to be, when studied only in connection with each other, if when brought into their position in the art or instrument their interchangeability is manifest, those individual variations become of no importance. Equivalence resides in use, not in intrinsic attributes; and similarity of use alone is necessary to make one act or substance the equivalent of another.”

This sweeping statement of Robinson finds, I think, an analogy in language. Words may develop in particular combinations properties quite unexpected. An automobilist passed a sign, “slow down,” and shortly after a sign, “slow up.” In these two simple combinations the words “up” and “down” are equivalents, though of diametrically opposite meaning when standing alone.

This doctrine of equivalents is so comprehensive and so complete that it has satisfied all requirements in Division 39 as to questions of novelty and legal invention, and has made unnecessary the use, as a substitute for cited art or as a supplement to it, of any indefinite word or expression.

Thus, for example, the word “aggregation” is never

*I may say that practically all the quotations are from that work. There are many valuable hand books of patent law, but Mr. Robinson has so profoundly analyzed and applied the principles of the law, studying it at the fountain head, that his book seems of a different kind. The other works, in spite of their value as reference books, have, naturally, in view of their object, the peculiarity that Robinson notes as to a line of court decisions; law is studied in the light of cases, rather than cases in the light of the law. I believe if Mr. Robinson had written his work earlier, and had in consequence, been appointed and served for some years as a federal judge, he would have made a scientifically accurate use of the principles he disclosed, using them as one uses tools; and his explanations of such use would have so elucidated patent practice that it would have become uniform and accurate both in the courts and in the office.

used, and is intentionally avoided because of its loose meaning.

I would like to state briefly why the word "aggregation" seems to me an unfortunate one in patent practice.

It seems to have begun its career innocently enough in the well-known case of *Hailes vs. Van Wormer*, 20 Wallace, page 353, the construction involved being a stove combining a magazine feed with a down draft. Magazine stoves with up-drafts had the defect that the heat of the products of combustion rising contiguous to the magazine heated the latter enough to release gas from the fuel in the magazine, causing puffs of gas into the room. The down-draft stove had been fed by hand. The court held that the union of the magazine and down-draft was selection within the art, and discussed and applied the art very fully. (It is doubtful whether the down-draft, by developing its new capacity of drawing the products away from the magazine, did not make the combination patentable.)

In addition to such complete application of the art the court said:

"But the results must be a product of the combination and not a mere aggregate of several results, each the complete product of one of the combined elements."

In the very next case of real importance before the Supreme Court, the familiar *Reckendorfer vs. Faber*, 92 U. S., page 375, this cloud originally as big as a man's hand suddenly loomed up so black and threatening as to obscure the anticipating capacity of known art, and subordinate it to the idea that the patentee had no standing in court, and no art need be cited. Known art was discussed only to emphasize this dreadful new thing thrust by patentees on an innocent public.

The following quotations show the state of mind of the court:

"The combination consists only of the application of a piece of rubber to one end of the same piece of wood, which makes a lead pencil. It is as if a patent should be granted for an article or a manufacture, as the patentee prefers to term it,

consisting of a stick twelve inches long, on one end of which is an ordinary hammer, and on the other end is a screw-driver or a tack-drawer, or, what you will see in every retail shop, a lead pencil on one end of which is a steel pen. It is the case of a garden rake, on the handle of which should be placed a hoe, or on the other side of the same end of which should be placed a hoe. In all these cases there might be the advantage of carrying about one instrument instead of two, or of avoiding the liability to loss or misplacing of separate tools. The instruments placed upon the same rod might be more convenient for use than when used separately. Each, however, continues to perform its own duty, and nothing else. No effect is produced; no result follows from the joint use of the two." . . .

And again:

"A handle in common, a joint handle, does not create a new or combined operation. The handle for the pencil does not create or aid the handle for the eraser. The handle for the eraser does not create or aid the handle for the pencil. Each has and each requires a handle the same as it had and required without reference to the other end of the instrument, and the operation of the handle of and for each is precisely the same whether the new article is or is not at the other end of it. In this and the cases supposed you have but a rake, a hoe, a hammer, a pencil or an eraser, when you have done." . . .

Still further:

. . . "In the case we are considering the parts claimed to make a combination are distinct and disconnected. There is not only no new result, but there is no joint operation. When the lead is used it performs the same operation and in the same manner as it would do if there were no rubber at the other end of the pencil. When the rubber is used it is in the same manner and

performs the same duty as if the lead were not in the same pencil. A pencil is laid down and a rubber is taken up, the one to write, the other to erase. . . . There is no relation between the instrument in the performance of their several functions and no reciprocal action, no parts used in common."

In considering the condition defined by the honorable court, let us suppose no one of the combined implements existed today, and that an application were filed for one of them.

The art would show a pencil, a rubber eraser, a pencil, a steel pen, a hoe, a rake, a hammer, a claw, each mounted on its handle.

Separated into pairs according to the loose alternate use to which these tools are put in practice, they would be, the pencil and rubber eraser, the pencil and steel pen, the hoe and rake, and the hammer and claw. Each pair would have two handles.

The applicant in question had formed from this assortment a compound tool, an implement with a single handle having a single tool on each of its ends.

Considering this new implement in its relation to known art and asking with Napoleon, "What has he done?" we see that he has reversed one of two handles carrying tools used alternately, and has merged the two handles in one. By these simple acts he has made three improvements: 1st, a nearly 50 per cent saving of material; 2d, a nearly 50 per cent saving of labor in manufacture, and 3d, a saving everlastingly in the time required to use the tools alternately. That this last item is so far from negligible as to be perhaps the most important one, may be seen from the great emphasis which the new efficiency systems place on the absence of "lost motion."

Could there be a truer triple test of invention?

Suppose as I have said that the producer of this article should file an application, the claim reading:

"An implement composed of a handle and a tool on each end of the handle."

Diagrammatically this article could be represented by T-II-T.

The problem here obviously did not concern itself at all with any *change* in the intimacy of cooperation of the tools concerned. The intimacy of cooperation remains the same as before. The problem was not one of tools, but of handles. The resulting compound tool falls clearly within the field of "articles of manufacture,"--the court conceded that condition to the pencil--and as clearly satisfies the conditions of invention above stated.

In event of a rejection by the Office on the ground stated by the court, the applicant could very properly explain that the problem was one of handles, that—and this seems to me a very important item—it was necessary for him to recite certain old parts in the claim in order to define his invention, this act being analogous to describing certain old parts in order to make clear the new thing. That he could not define his invention by claiming a handle alone. And that if neither the problem nor its solution was concerned with a *change* of intimacy of cooperation it was difficult to see how that intimacy was concerned with the question of patentability. That he had produced by an act of invention, a thing of legal novelty, falling within one of the statutory classes, and defined in the only clear way.

I believe there is no doubt that the Office would have issued a patent with the above claim.

I believe, further, that if a subsequent applicant had appeared disclosing an implement with a tool on each end, the tools being specifically different from those of the patentee, and had claimed the implement reciting the tools specifically, the Office would have rejected his claim on the patent. Obviously the problem was the same, the solution was the same, and as to the problem and its solution the character of the tool was immaterial, and so in the combination the patented tools would be the full equivalent of the subsequent tools recited.

Also I believe that the patentee could have sued successfully any one who should have made any one of the other combinations. The application of equivalents seems clear.

The honorable court in the pencil case had, literally, at

hand, an apparently complete anticipation of the pencil and rubber claimed, namely, the single handle with a lead on one end and a steel pen on the other. But apparently "aggregation" had grown in so short a time to such proportion as to enclose the vision on all sides. If in the *Hailes vs. Van Wormer* case, through reference to "aggregation," the camel's head entered the tent, in the pencil case the whole animal came in, overturned the tent and scattered the art broadcast.

In pleasant contrast to such a method of treating articles of manufacture presented to the Office for protection, is the treatment of a class of cases disclosing paper or similar articles with printed matter alone or with such matter and one or more simple mechanical features. Examples are a transfer ticket, *Cincinnati Transfer Co. vs. Pope*, 210 F. R., page 443; a menu card, *Benjamin Menu Card vs. Rand, McNally & Co.*, 210 F. R., page 285; a bank account book, *Time Saver Co. vs. Stamford Trust Co.*, 176 F., page 385. These are but samples of a large number of similar articles. The courts did, indeed, declare many patents on such articles void as not covering things falling within a statutory class. But the ordinary cause of refusal was on prior art alone. Yet in such articles there is very slight, if any, mechanical cooperation between the recited parts. Certain manipulations performed on the complete article, as severing a coupon, punching a hole, folding a sheet, etc., convey certain definite information to the users of them. They cooperate only to affect the mind. Yet neither the Office nor the courts are in these cases anxious to "see the wheels go round." The articles are considered as things embodied in visible, tangible form, and facilitating the conduct of human affairs. In determining their patentability the courts treat them as units, and analyzing, but not dissecting them, compare them with the total embodiment in units solving similar problems, and decide whether their existence occurred through the inventive act claimed.

Robinson says in Vol. 1, page 273, footnote:

"It may well be doubted whether many of the cases which have been decided against the patentees of manufactures on the ground that the

instrument claimed was a mere aggregation have not been governed by principles applicable rather to machines than manufactures, and really meritorious inventions been thus denied the protection of the law."

And above, on the same page:

"In a manufacture the law of operation is in the source from which the motive power is drawn; and the action of the instruments in their united state, so far as depends upon the instruments themselves, often remains the same as before they were united."

May not the reason for the adverse decisions referred to lie in the failure to recognize the condition intimated above herein, that it may be necessary, in order to define the actual invention, to recite in connection with it certain old things, although neither the problem nor its solution is concerned with a *change* in the cooperative interrelation of those things? Under such a condition apparently the intimacy of interrelation has no bearing on the question of invention.

I find no other court case in which the invention has been treated like the unfortunate pencil, and rejection on art refused in the direct presence of apparently sufficient anticipating art. Is it possible that this notorious pencil stands on its rubber heel, its lead pointed skyward, and satisfies that hackneyed legal phrase "a lonesome monument of error?"

The later court cases seem in line with *Hailes vs. Van Wormer* to have uniformly defined "aggregation" as an unpatentable combination of *old* things. Robinson, in his discussion of aggregation seems to leave it uncertain whether the term should be extended to combinations in which a part or all of the elements are specifically new, although he states clearly that in a true combination it is immaterial whether the elements are old or new.

But the "aggregation" now most commonly used in the Office is applied to combinations, some or all of the parts of which are specifically new, some art being usually cited; although in case of *Ex parte Potter*, *Miss. Deci-*

sions of the Commissioner, 1905, the citation of references was refused. The reason for this refusal was stated to be that "aggregation is a question of invention and not of novelty." Reference was made to common knowledge of the broad combination, apparently implying that applicant had disclaimed this broad combination since he claimed a specific combination having added features.

Thus aggregation has possessed three definitions. An unpatentable combination of old elements (*Hailes vs. Van Wormer*); second, a combination falling properly within one of the statutory classes, but including elements cooperating so loosely as to fall outside the pale of claimed things which demand anticipation by known art (*Reekendorfer vs. Faber*); third, a combination, some or all of the elements of which are new, and presenting a condition in which some art is usually cited, but need not be.

Recently the existing confusion of definitions of the term was considered by the court. *Krell Auto Grand Piano Co. of America vs. Story et al.*, 207 F., page 946, said:

"In the books the word 'aggregation' is used in different senses."

And, after discussion of such "aggregation" as the court defined in *Hailes vs. Van Wormer*, and as the Office defined in *Ex parte Potter*, continued:

"In another sense (which, in the interest of accurate terminology, might well be taken as the exclusive sense), 'aggregation' means that the claims, in and of themselves, independently of the prior art, show that the elements are incapable of coacting to produce a unitary result. Illustrative of this is the case of *Reekendorfer vs. Faber*."

This definition seems to be a limitation to the *Reekendorfer vs. Faber* condition. If so, it is hoped that the above discussion has shown the danger of using such a definition.

It seems to me fundamental that in arriving at an issue between parties no word of uncertain meaning should be

employed. If, then, Rule 66 is to be followed, and the best art is to be cited, the use of the word "aggregation" becomes a mere postscript, and is superfluous. If no art or less than the best art is considered sufficient in view of "aggregation," surely the applicant should be informed of the particular kind of "aggregation" of which he is guilty.

At a gathering of the Patent Bar Association and the examiners some time ago, one of the speakers, referring to the loose use of the term by the Office, quoted a member of his firm as saying "I have been in the patent business for a long time, but I don't yet know what an aggregation is."

Because of the easily possible loose use of the term, by reason of its variety of definitions, the word is, as I have said above, never used in our division. A new assistant, especially, might look on it as a convenient word, pointing to a path of least resistance. So the sign: "No thoroughfare" is placed at that path. Some Office letters which I have seen connect "aggregation" with such loose expressions as "illegitimate combination," "not a sufficient intimacy of relation between the elements," "no cooperation between the specific parts of the combination;" although in the last case, of course if two parts cooperate in their simple embodiments they cooperate none the less in their most elaborate embodiments. Indeed these various definitions leave the word so fluid that a new assistant may be tempted to pour it onto references perhaps thought to be weak in themselves, so that the cup of rejection may overflow, or it may be used as a sort of basting fluid so that the rejection shall be done to a turn. Therefore in our division it is "anathema," and the "aggregationist" is unknown.

Certainly if "aggregation" is to be used, it is only just to applicants that authoritative definitions of it be devised, so that in a given rejection for "aggregation" the applicant may understand precisely the form of "aggregation" used in that rejection. If when the Office "goes into action," it is thought desirable to "fire" "aggregation" at the applicant, it should surely be in the form of a single bullet, properly identified as a "steel point," "dum-dum," or what not, instead of a discharge from a shot gun, leaving the unfortunate man to wonder,

as he perhaps picks some shot from his person, whether the gun was fired merely on account of its report, and what part of the charge was really intended or expected to hit him.

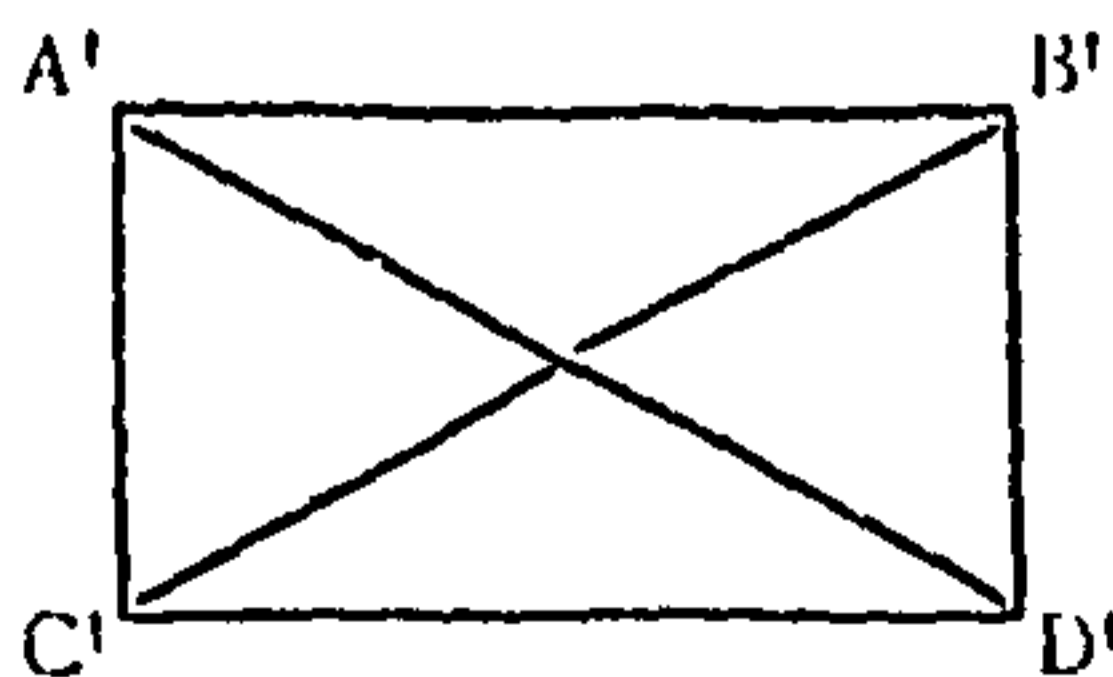
I have referred, in connection with *Ex parte Potter*, above, to an intimation therein of "disclaimer."

It seems to me quite unjust to reject a claim on the ground that what is not claimed is "disclaimed," and that the claimed matter is not patentable over the "disclaimed" matter.

"Disclaimer" is used in the statute as a means for restricting patent claims, and often in the courts also as a means to prevent a patentee from extending the scope of his actual claim in the endeavor to prove infringement of it. In connection with the latter procedure the court often states that a patentee disclaims any broader matter than he claims. Possibly Office rejection on "disclaimer" is due to the importation of that court statement into the Office, and the deduction that it applies to claims in a pending application.

But the ordinary procedure in the Office is, as in the *Potter* case, a sort of "selective disclaimer," and a judgment as to patentability is based on that selected form. The principle, however, if correct, must extend to all the matter disclaimed, since the apparent basis is that "all matter not claimed is disclaimed."

In the *Potter* case there were four elements, the base, the reflector, the lamp and the top, specifically claimed. A combination to them could be represented by A'-B'-C'-D'. On the "disclaimer" principles not only was the combination A-B-C-D disclaimed, but A'-B', A'-C', A'-D', B'-C', C'-D', A'-B'-C', A'-B'-D', A'-C'-D', and B'-C'-D'. Diagrammatically, this condition could be represented by a rectangle with diagonal lines joining the corners, and with one of the letters standing at each corner:



Thus, in such a combination everything is "disclaimed" excepting a combination in which each element modifies all the others, that is, it comes within the well-known Pickering *vs.* McCullough principle, long since decided to be unjust, and obviously especially so as to processes involving a succession of steps, and as to mechanism for carrying out such processes.

If "disclaimer" were applied to a claim for a valve-head having an annular hard-metal face with an edge, in combination with a valve-seat having an annular soft-metal face with a groove to receive said edge, the applicant would be assumed to have "disclaimed" the specific head *per se* and the specific seat *per se*, because he did not claim either separately. But inasmuch as the specific head and seat are capable of use only with each other, there could be no possible patentability in combining them; hence no combination claim could be allowed.

But, it is sometimes said, the "disclaimer" principle really results in broadening the claim first presented, because applicant after rejection on "disclaimer" may substitute a claim to the broader matter first disclaimed, and so be "properly" protected.

Assume a cutlery manufacturer who presents to the Office a disclosure of a rolled-metal butter-knife having its handle and blade integral, the handle and blade in planes at right angles to each other and connected by a twisted portion. (It may be stated that this is a well-known article, practically confined to butter knives.)

Assume also that the art shows no metal article of any kind so formed. Under "disclaimer," a claim to a "butter-knife" of that character would be rejected, as a "knife" broadly is disclaimed, and no patentability lies in using for butter a knife so made. But a claim to a "knife" disclaims a "tool," such for instance as a hammer so made. A claim for a "tool" disclaims "an article" so made, for instance a brace in a metallic structure. In view of all this the said cutlery manufacturer claims "an article" having the characteristics which have been noted; and so issues "fully protected." It subsequently develops that "an article" of the kind has been used to support a sign in a certain position. The claim is void.

If the original claim to a butter-knife had been compared with art, and the sign post had been discovered in

the search, would the Office or the court have rejected that piece of cutlery on the post? I don't believe so.

Further, such "disclaimer" procedure seems to deny the privilege allowed by the familiar *Ex parte Eagle*, of having a specific claim in addition to a generic claim.

"Disclaimer" would have rejected McNeil on his "disclaimer" of S, of S', of T, and of S-T.

Still another reason sometimes given for refusal to cite art in determining novelty and invention in a claim is that the claim should first clearly "define" the exact invention. Ordinarily this reason is given where one or more of the features recited do not, in the Examiner's opinion, actually take part in the combination on which the claim is based.

This treatment of a claim seems to me to be more reasonable than refusal of citation of art on the ground of "aggregation" or "disclaimer," because, here at least, an actual concrete thing is under observation; and whether all of the recited "lines,"—that is, the lines assumed to designate the known capabilities and properties of the elements—have actually become bonds between co-operating elements in the combination, or are inactive, idle lines, may be accurately determined.

But I can see no authority in the law or the courts for this procedure. It is true that the courts, in considering an invention so pioneer that no anticipating art is known even for the broadest embodiment of its idea, often quote Sec. 4888 to the effect that the applicant "shall particularly point out and distinctly claim," etc. And just as, perhaps, "disclaimer" was imported from the courts to the Office, the "particularly point-out" plan may have so entered.

In summary, as to rejection of application claims, I believe there is no legal authority for the refusal to cite existing pertinent art when the question for determination is "novelty" or "invention."

Mr. Robinson has treated Office procedure as to claims in his usually exhaustive way. He makes it clear that a person precedes his entrance to the Office as an applicant, by making what he supposes to be a patentable invention. He is possessor of a certain "sum of information" as to a certain art. He conceives of something which to him is an improvement in the art, and his conception is suffi-

ciently clear to be disclosed to the Office. Even in view of his limited "sum of information" his new thing may be the result only of the exercise of mechanical skill. It may however, be the result of a true inventive act.

But even such an inventive act is not necessarily entitled to reward in the form of a patent. For says Robinson, Vol. I, page 159:

"The knowledge of mankind in general concerning any of the factors of the idea of means does not, however, demonstrate that the inventor shared such knowledge. Whatever information others may have possessed, the attributes of those factors may be new to him and have been ascertained by a true process of discovery. . . . But as its only object"—that is, the object of the patent law—"is to confer exclusive privileges on the first inventor, it consistently refuses to regard any exhibition of inventive skill, the result of which could have been attained by applying the constructive process to the discoveries of others."

Thus a person, though a *true* inventor in view of his own previous "sum of information" is not a "*legal*" inventor; that is, an inventor in view of the "sum of information" possessed by those fully skilled in the art concerned. An ordinary applicant for a patent is thus honestly of the belief that he has performed an act of invention, that judgment being based on his "sum of information;" and if he desires a patent he follows the instructions of Sec. 4888.

It is well to note that although Sec. 4888 by implication states the proper form of a patent, it is in reality addressed not to patentees, but to applicants. So that its direction that the claim must "particularly point out," etc., is not a direction to present a claim which the Office will declare to be patentable, but is to define what applicant *believes* to be his invention. Thus he comes to the Office with "clean hands" if he definitely states what he believes to be his invention. But, reiterates Robinson on page 305 of Vol. I:

"An inventor does not become entitled to a patent merely by exercising his creative faculties

in the production of an art or instrument. The consideration for the grant of his exclusive privilege is the benefit which he confers upon the public by placing in their hands a means through the use of which their wants may be supplied. If the same means has been already made accessible to them by the inventive genius of a prior inventor, . . . no benefit results to them from his inventive act, and there is no consideration for his patent."

Robinson obviously here implies that "intrinsic" invention is not necessarily "legal" invention. He continues:

"In order, therefore, that an invention may be patented or protected by a patent it must be new, that is, bestowed for the first time upon the public by the patentee."

And later, on the same page he defines "legal novelty:"

"'Novelty,' therefore, exists unless the invention is already in the possession of the public as an operative art or instrument, and this occurs only when the invention itself is a matter of existing public knowledge, *or is derivable from what is known without the further exercise of inventive skill. In other words as every variation of form, as distinguished from variation in substance, is considered as effected by the imitative faculties, novelty consists in the substantial variation of the invention in question from all inventions which in the contemplation of the law, are already open to the public.*"

From this exhasutive definition of "legal invention" Robinson discusses "novelty" through over 150 pages. He, indeed, states, Vol. 2, page 140, that the applicant shall include in his claim only such parts as are necessary to define the real invention; but this again is based on the applicant's "sum of knowledge," and if a patent results the claim almost never issues in the form originally presented. One duty of the Office is to see that the claim

shall issue in proper form. In Vol. 1, page 155, Robinson says:

It is the duty of the Patent Office to secure the correct statement of the claims before it allows the issue of a patent. That the courts might sustain a defective claim, in order to prevent the defeat of a granted patent, is no reason for permitting such a claim to pass the scrutiny of the department. The claim is to define what the Patent Office, *after due examination*, has ascertained to be the real discovery of the inventor, and it must be amended or withdrawn according to the judgment of the officers to whom this duty is committed. Once settled in its terms by their decision, the courts will not disturb it, either by interfering with its language or by narrowing or enlarging it by construction.

Thus we have the applicant coming to the Office with a "clean bill" and the Office prepared to investigate his right to a patent.

The statute then turns its attention to the Office, and in Section 4893 directs the Commissioner to "cause an examination to be made of the alleged new invention or discovery; and if on such examination it shall appear that the claimant is justly entitled to a patent under the law, and that the same is sufficiently useful and important, the Commissioner shall issue a patent therefor."

And further, the statute in Section 4903 instructs both the Office and the applicant as to examination procedure:

"Whenever on examination any claim for a patent is rejected, the Commissioner shall notify the applicant thereof, giving him briefly the reasons for such rejection, together with such information and references as may be useful in judging of the propriety of renewing his application or of altering his specification; and if, after receiving such notice, the applicant persists in his claim for a patent, with or without altering his specification, the Commissioner shall order a re-examination of the case."

In considering this question of "legal novelty" which, as we have seen from the quotations above, includes "legal inventions," I find no statement or intimation in Robinson's work that the Office may test this question except by the consideration of the claimed invention as a "unit"—he uses the word "unit" repeatedly—and the direct comparison of it with the total disclosed embodiment which furnishes the "sum of information" possessed by those fully skilled in the art concerned, when any such art exists. (At rare intervals there are presented to the Office inventions so pioneer in character that there is no known anticipating art.)

Everywhere the procedure is a comparison between concrete things. The applicant was confronted with what was to him a problem. He solved that problem. No matter whether that solution resulted from only mechanical skill or from invention. No matter whether the solution is new or old. It is a solution.

As an applicant he complies with Section 4888. Robinson implies in the quotation above, from his page 305, that a patent shall be granted on the presented claim if its subject-matter has "legal novelty" and utility.

As to claims which recite features not material to the actual combination on which the claim is drawn (McNeil), he says in a footnote in Vol. I, page 389, referring to both the claim and the art compared with it to determine "novelty:"

"But it is essential, when all immaterial parts are excluded, and the true constituent elements of each combination alone remain, these elements in each combination should be equivalents of all those in the other."

This procedure has the very great advantage that there is direct comparison between concrete things, instead of comparison between a concrete thing presented to the Office, and the definition of a term or expression like "aggregation," "disclaimer," "particularly point out," etc.

That the avoidance of these terms and expressions in Office practice is not fatal appears from the nearly nine

years existence of Division 39. During that time thousands of cases have been acted on; hundreds have been withdrawn, before or after final rejection; and I am glad to say, many have been allowed. I believe that more applications have been finally disposed of than would be the case under any other procedure.

I should like to touch briefly on another phase of the citation of art.

It is recognized that the relation between a patentee and the public is in the nature of a contract.

A thing having been found to be patentable, as to that invention the applicant is related to the public as a creditor to a debtor. He may abandon all of his invention to the public. Why should the present law be interpreted to require that he shall abandon all, or none; that he shall give everything or demand his "pound of flesh;" and so compel him to define his actual invention in the broadest form?

A patentee is at liberty to treat the public as a licensee or grantee, and so abandon a part of his patent right. Why may not the statement of his duty to claim his invention be construed merely to mean that he must define clearly the bounds of the monopoly he desires, even though it be less than he is entitled to? An ordinary creditor may give a receipt in full when less than the whole amount of the debt is paid, if he is willing to do so.

Abandonment of a part of a monopoly to which an applicant is entitled would appear in a claim in the form of the recitation of unnecessary limitations. Suppose McNeil had known he was entitled to a monopoly on his new stitcher for all of its uses, but as a practical manufacturer cared only to use it in connection with a trimmer, dedicating all its other uses to the public. The court would hold him strictly to his limited monopoly. Who would be injured? Would not the Office duty be complete if it should inform the applicant of the true breadth of his monopoly, and leave him to deliberately restrict it as he desires?

A practice of allowing such limited monopolies would immensely simplify Office practice, a combination claim then being allowed if it contains a novel element.

Under this theory the McNeil claim would have been allowed, as well as the butter-knife claim above.

The McNeil claim could, therefore, according to the various theories of Office practice, be refused action as an "aggregation" (ex parte Potter); could be rejected on "disclaimed matter" disclosed; rejected as failing to "define" the invention; rejected on an equivalent, as was actually done; or, under the last-mentioned theory, could be allowed.

If rejections are to be based wholly or partly on "aggregation," "disclaimer" and "particular definition" in the claim, there should at least be authoritative definitions of those terms. Judgment as to patentability in view of a particular disclosure of art must, apparently, always be influenced by the personal factor. But as to the other fundamentals of Office practice there should be such accurate and widespread information that the personal factor would not influence the action. All applications are addressed to the Honorable Commissioner of Patents, and so far as is possible, all applications should be examined as if they were examined by him.

Rules 66 and 68 interpreting Section 4903 above quoted are the two "golden rules" of our official daily conduct. Figuratively their language should be on the wall of every division. As to these rules we should be strict constructionists, and insist on following the first rule and that applicants shall follow the second rule. In this way cases can be really and rapidly progressed.

In spite of the academic familiarity with these two rules the first paragraph of each is worthy of frequent repetition.

"Rule 66. Upon the rejection of an application for want of novelty the Examiner must cite the best references at his command. When the reference shows or describes inventions other than that claimed by the applicant, the particular part relied on will be designated as nearly as practicable. The pertinence of the reference, if not obvious, must be clearly explained and the anticipated claim specified."

Rule 68. "The applicant has a right to amend before or after the first rejection or action; and he may amend as often as the Examiner presents new

references or reasons for rejection. In so amending the applicant must clearly point out all the patentable novelty which he thinks the case presents in view of the references cited or the objections made. He must also show how the amendments avoid such references or objections."

It should be remembered that the time of a great many patent solicitors is more valuable commercially than the time of the examiners. Their clients pay more for their services than the Office pays the examiners, and many solicitors are paid according to the actual time employed on a case. It is due to applicants, therefore, that every Office action should be so definite that time need not be wasted in determining its meaning; and every action of an applicant should be equally clear.

I believe the greatest material thing in any country is its natural resources; the next, the defense of those resources; and then the development of those resources by the peaceful development of the arts and sciences. This development is practically synonymous with civilization.

But men are not yet so altruistic as to spend time, money and thought in such development without the prospect of financial return. Therefore every progressive country has its patent system. Our patent system thus stands on this lofty plane in relation to the welfare of our country; and everybody connected with it, in or out of the Patent Office, should be proud of that connection, and anxious to assist in doing the greatest good to the public by the exercise of the maximum efficiency. And in that efficiency, uniformity and consistency in practice are a large factor.

April 8, 1915.

RES ADJUDICATA

A paper read April 22, 1915, before the Examining
Corps of the United States Patent Office

BY

FAIRFAX BAYARD,
Member of the Board of Examiners-in-Chief,
U. S. Patent Office.

WASHINGTON, D. C.
1915

Res Adjudicata

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INTRODUCTION.

If the judgments of courts had no substantial element of finality, such judgments and legal proceedings generally would be of very little value. Neither the parties to the suit nor others could rely upon a judicial determination as a guide in the further conduct of their affairs. They would be forever embarrassed by the possibility that the first judgment would be superseded by a different judgment. Moreover, if the party prevailing in a legal contest could be dragged through other contests by the losing party, upon the same question, the burdens of legal proceedings would be unbearable; and the ultimate decision, if this were so, would depend more on the relative powers of financial endurance of the parties than upon the relative merits of their cases. To produce certainty in the minds of litigants and others, with regard to matters which have been passed upon by the courts, and to keep down the burdens of litigation, and to reduce the opportunity of the richer litigant to exhaust his poorer opponent by protracting the litigation, the courts have restricted in many ways the right to present again for determination questions in regard to which a determination has once been made, or in regard to which an opportunity to secure a determination has been once accorded. All of the following branches of the law are based entirely or in part upon the necessity for regarding, to a greater or less extent, any question as finally settled that has once been judicially passed upon: The doctrine of the law of the case; the law of reconsideration and reopening, and of review by the same court or a

court of coordinate jurisdiction; that portion of the law of appeals which restricts the right to appeal; the rule of comity; the doctrine of *stare decisis*; and the doctrine of *res adjudicata*.

PRELIMINARY DEFINITION AND THE DISTINCTION BETWEEN RES ADJUDICATA AND RELATED SUBJECTS.

The doctrine of *res adjudicata* generally stated is that any matter which is disposed of by a final judgment on the merits is not ordinarily open to question in any further litigation between the same parties except as provided by the rules of appeal, reopening and review. The distinction between *res adjudicata* and the other branches of the law which limit further consideration after a first determination will be briefly indicated before passing to a more detailed consideration of the former subject.

The doctrine known as the "Law of the Case" has to do with the binding effect of preliminary and interlocutory rulings upon the court and parties in the further conduct of the same case. Certain preliminary rulings are binding upon parties and court at the final hearing. Some are binding upon the parties in the discretion of the court. And as to some, the parties have a right to further consideration. For example, a ruling by the Commissioner on motion for dissolution that certain matter was disclosed in a party's application when filed, would be binding upon the lower tribunals at final hearing if submitted upon the same facts. It would not be binding upon them if testimony was taken to vary the situation from that ruled upon by the Commissioner. A similar ruling by the law examiner would be binding or not upon the parties at final hearing before the Examiner of Interferences, in the absence of testimony upon the point, according to the discretion of the Examiner of Interferences. There is one very common situation where the Office has given itself and innocent parties much unnecessary trouble through its failure to apply thereto the doctrine of the law of the case. This is where one party, of later date, seeks to overturn at final hearing and on appeal thereafter, the finding of the

Primary Examiner in declaring the interference, or of the law Examiner on motion for dissolution, that the language of the issue is broad enough to cover the subject-matter which is unquestionably disclosed or proved by another party of earlier date. There seems to be no good reason why the Primary Examiner's ruling on this point, if not set aside before the case goes to proofs and final hearing, should not be regarded as binding upon all parties and tribunals in finally disposing of the interference. The recent case of *Wentworth vs. Sutton, Steele & Steele*, 204 O. G., 320, 41 App. D. C., 582, is an example of much controversy, and loss of generic protection by the party seeming to have the earlier date, all of which would have been avoided by an application of this rule in the first interference. The rule of the courts in applying the doctrine of the law of the case is a rule of reason. Preliminary and interlocutory decisions are regarded as binding where unnecessary reconsideration of the same question is thereby avoided, and where such a course is necessary to secure an orderly progress to a final decision. Preliminary and interlocutory determinations are not binding in the further conduct of the case where such a course will preclude a fair determination. For a full exposition of the subject of the law of the case reference is made to Black on the "Law of Judicial Precedents," Chapter VI. The distinction between the law of the case and *res adjudicata*, in short, is that the former has to do with the effect of preliminary and interlocutory determinations in the final disposition of the same case and the latter has to do with the effect of the final judgment upon other suits or actions.

The reopening of cases after judgment, in order to admit new evidence or for reargument, is necessary under certain circumstances in order to do justice and satisfy the dictates of common sense. But because of the general necessity of limiting the amount of litigation which can be carried on regarding the same matter, the right to thus reopen a case must ordinarily be sought within a certain time, usually in the term of court at which the judgment is rendered, and must be based upon a satisfactory showing that the failure to fully present the case in the first instance was not deliberate or due to negligence upon the part of the moving party. Statutes

in some States have extended or removed the time limit within which reopening must be sought. And judgments can ordinarily be set aside at any time for want of jurisdiction of subject-matter or parties, or for fraud. The distinction between reopening and *res adjudicata* is that reopening is sought and carried on by further actions in the same proceeding, or by a separate proceeding which is particularly directed to the setting aside of the former judgment, as in the case of a bill of review; while *res adjudicata* applies to bar further consideration of the same questions in separate proceedings which are not specifically directed to the vacating of the prior judgment in the other case. Let no one lightly assume that he may raise in an independent proceeding questions which were passed upon in another proceeding, merely because he has at his disposal good grounds for the reopening of the other proceeding. With certain exceptions in cases of judgments void for want of jurisdiction, or for fraud, the courts insist that an attack on a prior judgment must be made directly in a proceeding recognized for that purpose and not collaterally in an independent proceeding. The interference of *Nelson vs. Felsing & Felsing vs. Nelson*, 142 O. G., 289, 32 App. D. C., 420, furnishes an example of the application of this rule. The subjects of reopening, review, and collateral impeachment are treated in 23 Cyc., pages 889 to 1106, inclusive.

Because consideration on appeal presents another exception to the rule of *res adjudicata*, certain restrictions are likewise imposed thereon. The appeal must be promptly initiated; no new evidence can be presented, and parties are sometimes held even in argument to contentions advanced below.

As to the rule of comity it is sufficient to say here that any tribunal will incline toward a prior finding or ruling upon the same point by some other tribunal, other things being equal. The rule of comity has to do with cases where one or both of the parties to one suit are not the same as in the other suit and to cases between the same parties where the courts are of different countries. It is not a binding enforceable rule and is different from the rule of *res adjudicata* in all of these respects.

The doctrine of *stare decisis*, strictly applied, would re-

quire that any judicial ruling upon a point of law be accepted as binding ever after upon all parties and all judges in all cases in the same court and other courts of coordinate jurisdiction in the same state or country. But judges are not now usually considered to be bound by precedents which they regard as clearly wrong unless such precedents are very strong or numerous, or are by an appellate court to which their own decisions are appealable. It is sometimes stated that precedents are to be accepted in other cases only in so far as they are helpful guides to a correct conclusion. *Stare decisis* has principally to do with the interpretation of statutes and the laying down of large legal principles. It has nothing to do with mere findings of fact. Comity and *res adjudicata* but not *stare decisis* are applied between the courts of the different Federal circuits. A District Court is not bound by the rulings of the Circuit Court of Appeals of another circuit in other cases not between the same parties, but must follow those of the Circuit Court of Appeals of its own circuit. A patent may be valid in one circuit and not in another, and the same thing may infringe in one circuit and not in another, as against different defendants, though not as against the same defendant. As a result of the applicability of the rule of *res adjudicata*, and not that of *stare decisis*, between different circuits, it would seem that one person may, under certain circumstances, have a right to use a patented article in a certain circuit in defiance of the patentee, when every one else would be bound, or he might be bound by the patent though every one else was free therefrom. See *Rubber Co. vs. Milwaukee Co.*, 154 Fed., 358 (C. C. A., 7).

SPECIFIC CONSIDERATION OF RES ADJUDICATA.

The related subjects having been briefly explained, a more detailed discussion of the doctrine of *res adjudicata* is in order. A leading English case, known as the case of the Duchess of Kingston (2 Smith's Leading Cases, 826, et seq.), held:

That the judgment of a court of concurrent jurisdiction directly upon the point is, as a plea,

a bar, or as evidence, conclusive between the same parties upon the same matter directly in question in another court.

From *Cromwell vs. County of Sac*, 94 U. S., 351.

Justice Campbell said:

Experience has disclosed that for the security of rights, and the preservation of the repose of society, a limit must be imposed upon the faculties for litigation. For this purpose the presumption has been adopted that the thing adjudged by a court of competent jurisdiction, under definite conditions, shall be received in evidence as irrefragable truth.

Washington, Alexandria & Georgetown S. P. Co. vs. Sickels, 24 Howard, 333.

Justice Harlan said:

The peace and order of society demand that matters distinctly put in issue and determined by a court of competent jurisdiction as to subject-matter and parties, shall not be retried between the same parties in any subsequent suit in any court.

Johnson Co. vs. Wharton, 152 U. S., 252.

Justice Brewer has said:

Private right and public welfare unite in demanding that a question once adjudicated by a court of competent jurisdiction shall, except in direct proceedings to review, be considered as finally settled and conclusive upon the parties.

Fayerweather vs. Ritch, 195 U. S., 277.

Bigelow in his work on estoppel divides estoppels into three classes: (1) Estoppel by record of court; (2) estoppel by deed; and (3) estoppel by matter *in pais*, or the ordinary estoppel of a party by his own misleading act or failure to act. And he divides estoppel by record of

court into two kinds; one, the estoppel to deny the truth and genuineness of a court record, and the other, the estoppel to further litigate in an independent proceeding any matter finally passed upon by a court in a proceeding involving the same parties, which is the estoppel or bar of *res adjudicata*. And this process of subdivision may well be carried one step further, while we are thus subdividing, by noting that estoppels to deny the merit of prior judgments are of two kinds: first, the estoppel to further contest a settled cause of action, and second, the estoppel to contradict a determined fact.

Black, in his work on judgments and in his article upon judgments in the *Cyclopedia of Law and Procedure*, separates the subject of *res adjudicata* into "Bar by Former Recovery," and "Conclusiveness of Judgment." The "Bar by Former Recovery," according to this author, deals with those cases where the prior judgment is offered as in itself disposing of the whole demand; "Conclusiveness of Judgment" deals with those cases in which the prior judgment is offered as settling some point involved in the later case. Both classes of cases are treated in this paper, but it seems to me inexpedient to make the whole presentation of the subject arrange itself upon this line and I have not done so. Nor do the expressions "Bar by Former Recovery" and "Conclusiveness of Judgment" seem to me to clearly indicate the distinction which does in fact exist, and these expressions will not be used herein to mark the same.

An application of the estoppel or bar of *res adjudicata* requires: (1) that there shall have been a final judgment; (2) that the prior judgment shall have been rendered either actually or constructively upon the merits of the case; (3) that the parties in the two proceedings shall be the same or privies of the same parties, and (4) that the same specific question must have been considered and decided as a basis for the former judgment, or (5) that the prior judgment must have disposed of the same demand or cause of action, or (6) of some non-severable portion thereof. But when there has been a judgment which satisfies these conditions, any finding made in support of that judgment is ordinarily conclusive in any other cases between the parties; and further litigation between them upon the same demand and cause of action is

also ordinarily barred; except as the same case may be reopened, or considered upon a bill of review or upon appeal. It is ordinarily immaterial that the first judgment is wrong and not in accord with the true law or real fact and causes hardship. In *Werlein vs. New Orleans*, 177 U. S., 390, it was found that certain city property was not subject to alienation in satisfaction of judgments against the city, but the court nevertheless confirmed the title of a private litigant to this property because a prior suit by the city to prevent the sale thereof had been decided against the city and that decision had become final. In that case, the fault was with the city in that it failed to advance the proper ground in its first suit, but a prior erroneous judgment, not reversed or set aside in the regular way, is ordinarily binding whether the error therein is attributable to a party or to the court. See, also, *Hubbell vs. U. S.*, 83 O. G., 1661 (U. S. S. C.)

Nor is the operation of the rule of *res adjudicata* ordinarily avoided by the fact that the prior judgment was rendered in a case which was begun later than the case to which it is proposed to apply the rule. *Bradley vs. Eagle*, 66 O. G., 315 (C. C. A.) Nor can the estoppel be avoided in a case in which an appeal is permitted, by showing that no appeal was permitted from the judgment in the prior case. *Johnson vs. Wharton*, 152 U. S., 252. Inasmuch as the rule of *res adjudicata* forbids further litigation of the same demand, it applies to rulings of law as well as to findings of fact. *Mitchell vs. Bank*, 180 U. S., 471; *Spencer vs. Watkins*, 169 Fed., 379, 385. But where a different demand or cause of action is presented, the legal rulings involved by a prior judgment do not come within the field of the doctrine of *res adjudicata* so far as I can find, except as they underlie some finding of fact which is material, both to the former judgment and to the further litigation. Otherwise, a party is not estopped, so far as I know, from controverting a ruling of law made in another case, even though the parties were the same, except so far as this may be forbidden by the doctrine of *stare decisis*. And the estoppel of *res adjudicata* acts against the successful as well as against the unsuccessful party to the case in which the prior judgment was rendered. The victor can no more repudiate the findings of fact upon which he prevailed in one

case, against the objection of his opponent, in another case, than can the loser continue to urge matters which have been adjudged against him. And a party, whether victor or loser, may not bring successive suits upon the same demand; nor may a party always maintain a suit on a closely related demand or cause of action, after a first judgment, either for or against him.

The purpose of the remainder of this paper is to discuss concisely, so far as relevant to *res adjudicata*, the subjects of (1) Finality of Judgments; (2) Judgments on the Merits; (3) Identity of Parties; (4) Cases where some specific point which is material thereto has been determined in another case; (5) Cases where there has been a judgment in another case which was based upon the same demand or cause of action; (6) Cases where there has been a judgment in another case based upon another portion of the same unitary demand or cause of action—the splitting of unitary demands and causes of action; (7) The doctrine of *res adjudicata* as between courts of different countries or states, and the doctrine as between proceedings of different character; and (8) the exceptions to the rule where the prior judgment is void. These eight subjects will be taken up in the order stated.

THE PRIOR JUDGMENT MUST BE A FINAL JUDGMENT.

A decision in a case prior to final judgment is not ordinarily binding between the parties in other cases. So that a case that has been disposed of without a final judgment and a case that is still awaiting final judgment can not be made the basis for a finding of *res adjudicata* in another case. *Baker vs. Sanders*, C. D. 1897, 820 (C. C. A. 2); Black on Judgments, Chapter 18, part 2, and Chapter 19, part 2. A party need not defend a plurality of cases directed to the same matter, but his remedy is by a plea of *lis pendens* and not by one of *res adjudicata*, if none of the cases has passed to final judgment. In some jurisdictions a final judgment of the trial court may be pleaded as *res adjudicata* while an appeal is pending and in some it can not. *Reason vs. City*, 101 Fed., 665. But after reversal on appeal or after any other action vacating the judgment below that judgment can

not support a finding of *res adjudicata*. And the mere fact that an appeal is permitted is said never to render a judgment unavailable for the purpose of the estoppel of *res adjudicata*. 23 Cyc., 1232 (g). *Hubbell vs. U. S.*, C. D. 1898, 498. A judgment upon motion or demurrer is a final judgment if it brings the case to an end in the trial court. To what extent such a judgment bars further controversy in other suits is considered in the next section hereof. The following cases in the Patent Office are examples of further contest barred by a final decision from which an appeal could have been prosecuted, but was not prosecuted: *Wende vs. Horine*, 129 O. G., 2858, 29 App. D. C., 415; *U. S. vs. Newcomb Co.*, C. D. 1908, p. 332, 30 App. D. C., 464; *In re Herbst*, 141 O. G., 287, 32 App. D. C., 269.

It would seem that an interlocutory determination which is not adopted in the final decision, or which does not automatically stand as part of the grounds of the final judgment, would not support a ruling of *res adjudicata*. *Barclay & Barclay vs. Carter Co.*, 198 O. G., 238, 41 App. D. C., 240, seems to me to be to the contrary, but it may be that the court considered the ruling upon the demurrer to be an essential element of the final award of priority of adoption and use.

THE PRIOR JUDGMENT MUST BE ONE UPON THE MERITS.

The questions arise whether a judgment entered upon a default, withdrawal, admission, or consent, will bar further litigation of the same matter. Either party may fail to plead or to take testimony, or to comply with formal requirements, such as printing. And a plaintiff or complainant may voluntarily take a non-suit or dismiss his bill, or a non-suit or dismissal may be entered without his consent. When a proceeding ends in one of these ways, is further consideration of the same question barred? And to what extent does a judgment upon motion or demurrer bar subsequent consideration in another proceeding?

There is a distinction between the position of the plaintiff and the position of the defendant, in the ordinary case, which is very important in this connection.

The plaintiff is ordinarily the only party who is seeking affirmative action. He alone wants something done. The defendant is ordinarily in possession and content with things as they are. Therefore a termination of the action or suit, without an adjudication that the plaintiff has or has not any case, leaves the defendant in possession; he is just where he was before the suit was brought. He has asked for nothing; he has been denied nothing, and has been deprived of nothing. Except for the worry, labor, loss of time, and the expense incident to the suit, he has not been injured, and the award of costs in his favor is ordinarily assumed to fully compensate him in these respects. For these reasons, the plaintiff or complainant, upon the payment of costs, may ordinarily default, take a non-suit, or dismiss his case, at any time prior to the entry of final judgment, and even after a verdict against him. And such non-suit, dismissal, or default leaves him free to bring another action, and to repeat the process without apparent limit except that imposed by statutes of limitation. *Homer vs Brown*, 16 Howard, 354; *Hughes vs. U. S.*, 4 Wall, 232; *Haldeman vs. U. S.*, 91 U. S., 584; *Manhattan vs. Boughton*, 109 U. S., 121; *Woodward vs. Davidson*, 150 Fed. Rep., 840; *U. S. Co. vs. Bradley*, 149 Fed. Rep., 222; *Francisco vs. Chicago*, 149 Fed. Rep., 354. But see *Coram vs. Ingersal*, 148 Fed., 169, and *Minor vs. Mechanics*, 1 Pet., 46. And a final judgment of non-suit entered, against the plaintiff's protest, on the ground that his pleadings or evidence are insufficient to make out a case or prove his case, is likewise not a judgment on the merits and leaves the plaintiff free to bring another suit. 23 Cyc., 1131-1155 and 1225-1232.

The defendant, of course, has no such privileges. If he could avoid a binding judgment by defaulting, withdrawing, or resting upon insufficient proofs, he could defer indefinitely the action or relief which was sought by the plaintiff; and the courts would be without power to secure to suitors rights of which they have been deprived, or to enforce redress for wrongs which they have suffered. A judgment against a defendant based upon default, or upon an insufficiency of evidence in his behalf, or upon a withdrawal without consent, is therefore of necessity a binding judgment, and is presumed to rest

upon an admission or finding that his case is without merit, though there has been no more actual consideration of the real facts than when a plaintiff pursues a similar course. 23 Cyc., 767, 1135, 1229; *Hefner vs. Northwestern*, 123 U. S., 747; *Last Chance vs. Tyler*, 157 U. S., 683.

Nor is it always true that a plaintiff can dismiss his case, or submit it upon insufficient evidence, and escape a judgment which is binding. If the defendant is seeking affirmative relief, the same reasons which ordinarily prevent the defendant from thus escaping a binding determination, apply to the plaintiff, and he is similarly bound. And in any case where the defendant successfully controverts the plaintiff's evidence, or proves that no such facts exist as are alleged by the plaintiff, there should be a general judgment for the defendant, which is a judgment on the merits, conclusive and binding upon both parties. 23 Cyc., 774. And a judgment based upon an admission or rendered with consent is usually binding. *Harding vs. Harding*, 198 U. S., 317. And a judgment against a plaintiff purporting to be on the merits can not be shown in another suit by testimony to have been in fact based upon the plaintiff's default. *Lyon vs. Perin*, 43 O. G., 983 (U. S. S. C.); but it is said in other cases that the court will look to the substance and not the form of the prior judgment.

A judgment upon demurrer is not a judgment upon the merits when it disposes merely of some technical point of pleading or is based upon an insufficiency of allegation in the declaration or bill. A judgment on demurrer conclusively establishes the point ruled upon, and therefore when the whole case is presented by the demurrer it is a bar to further litigation of that subject-matter. But a judgment upon demurrer does not as a rule bar further consideration of anything but the exact matter passed upon or the specific point determined. *Gould vs. Railroad*, 91 U. S., 526; *Gilman vs. Rives*, 10 Pet., 297; *Wiggins vs. Railway*, 142 U. S., 396; *City vs. Clark*, 62 Fed., 694 (Taft); *Ohio vs. Fisher*, 115 Fed., 929; and *Gilman vs. Norris*, 46 Fed., 333. Judgments upon motion are presumably governed by the same principles. It has been held, however, that this practice does not apply to permit an interferant to contest a second interference upon a broad-

ened claim after a judgment against him upon the ground that the issue is too narrow to cover the common invention which the same was supposed to cover when the interference was declared. *Sutton, Steel and Steele vs. Wentworth*, 204 O. G., 320, 41 App. D. C., 582. Attention has already been called to *Barelay & Barelay vs. Carter Co.*, in which an applicant for registration in a second opposition was held barred from asserting that the marks did not conflict, because of a decision in the first opposition overruling his demurrer brought upon this ground, and a final judgment in his favor based upon the opposer's failure to print.

In interferences between two applicants in the Patent Office both parties are seeking affirmative action; each wants a patent, and judgment for either party prevents the other party from obtaining a patent for the subject-matter in issue. Each party stands as a plaintiff in respect to his own demand and as a defendant with respect to the demand of his opponent. Such an interference is therefore like a suit in which a cross bill has been filed. Neither party can escape a binding judgment by defaulting or by failing to prove his case. The force of these fundamental facts should never be overlooked merely because we do not clerically entitle each interference between parties A and B, as B *vs.* A, as well as A *vs.* B. Our practice of regarding the junior party as the plaintiff and the senior party as the defendant is right for the purpose of procuring an orderly production of proofs, and for determining who shall prevail when no testimony is taken and when the evidence upon some critical question is evenly balanced. But it would be unreasonable to take this view of an interference when applying thereto the practice of the courts in the matter of a plaintiff's right to default, or dismiss his case, or fail to prove the same, and thereafter contest the same question in another suit. This point is one that must always be kept in mind when applying the decisions of the courts as precedents in *res adjudicata* cases in the Patent Office; the senior applicant is a plaintiff as well as a defendant, and the junior party is a defendant as well as a plaintiff. The junior party may not, in a second interference, contest the senior applicant's right to the patent which he is seeking, any more than a senior

applicant can take such a course against the junior party.

Whether a patentee or registrant involved in an interference or cancellation can be said to seek affirmative action is doubtful, although he relies on his own separate cause of action as we shall see later. So far as the applicant's right to withdraw is concerned, it would seem that a patentee and a registrant in such cases stand in nearly the same position as an ordinary defendant, except in the matter of the award of costs. Mr. Assistant Commissioner Whitehead has suggested that in this situation, and some others in the Patent Office where the court precedents will not support the estoppel of *res adjudicata*, a party who fails to fully prove his case in the first proceeding may be prevented from asserting any right in a second contest, by the general doctrine of estoppel *in pais*. The injury to his opponent in useless expense, incurred through the failure of the party in question to speak when he had an opportunity to speak, may well be held to estop him from speaking later. It would seem that in any contested case in the Patent Office we can well hold that a judgment upon default, or insufficient pleading, or insufficient evidence, is as binding as any other judgment, by reason of this extra burden which a further contest would impose upon the party who stood ready to fully contest the first case. And it has been the uniform practice of the Office to so hold, whether the proceeding involves applicants only or includes a patentee or registrant. A large number of interferences are disposed of every year upon the failure of the junior party to file a preliminary statement, or to take testimony, or to adduce sufficient proof to establish the facts of his preliminary statement, or to print his testimony. And in many of these cases the senior party is a patentee. But I have never heard that a second interference had been permitted in one of these cases because the judgment was not based upon the merits.

In *Carter Co. vs. Barclay & Barclay*, 162 O. G., 785, 36 App. D. C., 123, the Carter Co. opposed Barclay & Barclay's application for trade-mark registration. A former opposition by the Carter Co. to the same application of Barclay & Barclay had been dismissed because the opposer had failed to print his testimony. The

plea of *res adjudicata* in the second case was overruled, but the Court of Appeals in overruling this plea did not put its decision on the ground that the dismissal of the first case for the failure to print was not a decision on the merits. The fact that the court did not base its decision on the ground that a judgment against a complainant for failure to print does not preclude a second proceeding, strongly indicates that proceedings in the Patent Office are not subject to the general rule in this regard, and that in the Patent Office a judgment against a complainant based upon any default or upon insufficient evidence is a bar to a second contest, and this conclusion is confirmed by the fact that when this case again came before the Court of Appeals, the adjudication of priority of adoption and use in the first proceeding in favor of Barelay & Barelay was held to estop them from questioning the substantial identity of the marks of the two parties in the second proceeding. *Barelay & Barelay vs. Carter Co.*, 198 O. G., 238, 41 App. D. C., 240.

In *Ex parte Votey*, 1905 C. D., 1, Votey's claims were rejected upon a judgment against him in an interference proceeding. Votey pointed out that the judgment was based upon his failure to take testimony and demanded, among other things, that another interference be declared. The demand was denied.

In the case of *Carroll vs. Hallwood*, 135 O. G., 896, 31 App. D. C., 165, Carroll was the senior party in a prior interference where he unsuccessfully urged that the issue was not patentable and then filed an abandonment of the invention in issue and took an adverse judgment of priority. He then filed a narrower claim based upon the same construction and a second interference was declared. In this the subject-matter was held to be *res adjudicata* notwithstanding the fact that the judgment in the first interference was not based upon proofs by the junior party.

In *Nelson vs. Felsing*, 142 O. G., 289, 32 App. D. C., 420, a patentee was held estopped from prevailing in an interference by a decision in a prior interference between the same parties upon substantially the same invention. The prior decision was based upon a concession of priority by the patentee. The patentee offered evidence in the second interference to show that the concession had been

obtained by duress, but the court held that the prior judgment could not be thus collaterally attacked.

It has been held, however, that an interferant who takes a judgment against himself on the record may thereafter put the claims in an earlier application and contest another interference with the same antagonist. *Thorpe vs. White & White*, 91 O. G., 1435. It may be that this practice is overruled by the later decision in *Blackford vs. Wilder*, 127 O. G., 1255, 28 App. D. C., 535.

A dissolution is like a decision on demurrer in that it disposes of the case on some preliminary or formal matter, or because it is apparent upon the face of the record that one of the parties has no case. Dissolution for vagueness of the issue does not bar another interference upon corrected issues. *Dinkel vs. D'Olier*, 113 O. G., 2507. Dissolution on the ground that the issue presents no invention does not bar a second interference on the same issue or on an amended issue which is "not essentially different" from the prior issue (*Rotter vs. Hodgkinson*, 213 O. G., 1118, C. A.; *Gold vs. Gold*, C. D., 1910, p. 269, 34 App. D. C., 229) and, of course, the second contest is not barred by a dissolution for anticipation or lack of invention where the new issue is essentially different from the old one.

But dissolution on the ground that a party has no right to make the claims in issue has been held to be a final decision on priority of invention and to bar a further contest in a separate proceeding. *U. S. vs. Newcomb Co.*, C. D., 1908, p. 332, 30 App. D. C., 464, and *Gold vs. Gold*, *supra*. However, there is no distinction which is clear to me between these cases and the case of *Moore vs. U. S. ex rel. Colburn*, 191 O. G., 293, 40 App. D. C., 201, where the second interference was held not to be barred by the rule of *res adjudicata*.

There is another question arising in *res adjudicata* cases, which may well be considered in connection with the proposition that the judgment to be a bar must be upon the merits. As set forth in Black's "Judgments," section 733—

. . . cases not infrequently arise in which a party, acting upon a certain theory as to his

legal rights, or as to the legal effects of a given state of facts or transaction, brings his action and is defeated, being unable to substantiate his view of the case, and afterwards renews the litigation, without any change in the facts, but basing his claim on a new and more correct theory. In such a case, the former judgment is no bar to the second action. It is true the subject-matter is the same, but the cause of action set up in the former suit was, as shown by the result, merely illusory and supposititious, and hence it can not be considered as identical, in any just sense of the term, with the true cause of action correctly set up and supported by a right theory of the facts. Further, the evidence necessary to sustain the second action could not, if offered in the first, have altered the result. And this, as we have seen, is the one recognized test of identity.

But it is not enough to bring a case within the foregoing rule that the party sets up new or additional reasons why his contention should prevail. In other words, a judgment will be allowed its full conclusive effect where the parties and the cause of action are the same, and the theory on which the case is based is not essentially different from that formerly litigated, although the plaintiff now brings forward new grounds of recovery, or the defendant now sets up new grounds of defense.

See, also, *Water vs. City*, 160 Fed., 41 (C. C. A., 8).

IDENTITY OF PARTIES.

A prior judgment is not binding upon any one who was not an actual party to the proceeding or in privity with an actual party, except in the case of a proceeding *in rem*, and except in so far as one not a party may be bound by a ruling of law in accordance with the doctrine of *stare decisis*. A proceeding *in rem* is one in which the court is

considered to deal directly with the subject-matter, rather than with the persons who are interested therein. There are comparatively few cases of this kind. Certain admiralty proceedings and attachments for violations of revenue laws appear to form the bulk of them. Probate and divorce proceedings and some others are *in quasi rem*. Other proceedings are *in personam*. In proceedings *in rem* no service is required. In proceedings *in quasi rem* constructive service may be had by publication. In proceedings *in personam*, actual legal personal service is required. Wells on *Res Adjudicata* and *Stare Decisis*, Chapter 38. Judgments in proceedings *in rem* are binding on everybody. Judgments in proceedings *in quasi rem* and *in personam* are binding only on the parties to the proceeding. A suit upon a patent is not a proceeding *in rem*. Even a judgment that the patent is invalid apparently will not prevent the patentee from presenting the patent for another adjudication in a suit against another party and sustaining the same. *U. S. vs. Am. Bell*, 128 U. S., 315; *Rubber vs. Milwaukee*, 154 Fed., 358 (C. C. A., 7).

An assignee of a successful defendant can take advantage of the rule of *res adjudicata* to bar a subsequent suit against him by the same plaintiff. *Werlein vs. New Orleans*, 177 U. S., 390. An assignee of a losing defendant is barred from recontesting the same matter with the same plaintiff. *Stout vs. Lye*, 103 U. S., 66. And in general those deriving from a litigant or otherwise in privity with him stand in his place for all purposes so far as *res adjudicata* is concerned. But the questions that arise regarding identity of parties in different specific situations are almost infinite. Wells on *Res Adjudicata* and *Stare Decisis*, Chapters 2 to 14, inclusive.

It is sometimes held that an executor or trustee suing as such is a different party from the same person appearing in his separate personal capacity. *Collins vs. Hydom*, 135 N. Y., 320. But this doctrine will not apply to permit a city to bring a second suit, in regard to certain city property, on the theory that the first suit was for itself and that the second suit is for the people as their trustee. *Werlein vs. New Orleans*, 177 U. S., 390. Nor will it permit the United States, after losing one suit in regard to some Indian lands, to maintain a second

suit on the theory that it then acted for itself and is now acting for the Indians. *U. S. vs. Cal. & Ore. Land Co.*, 192 U. S., 355.

The presentation by a common assignee, in successive suits or interferences, of the titles of different assignees, will be considered under the next heading. There is no question in such a case but that the parties to the two cases are identical. The question that is raised is to what extent the litigation of certain subject-matter and the advance of certain titles and proofs bar further litigation upon other more or less related subject-matter, and bar the presentation of other more or less related titles and proofs.

In the Patent Office, bearing upon the question of identity of parties, there is the decision in *Miller vs. Lambert*, C. D. 1895, page 77, where a party was held estopped by a judgment against him and another as joint inventors in a prior interference upon the same invention.

SUBJECT-MATTER--PRIOR SPECIFIC DETERMINATION.

After a final judgment upon the merits in one case, what matters, titles, or evidence may be considered in another case between the same parties? What may be called *the first rule of subject-matter* is the following: Any specific question which is actually considered and determined, as a basis for final judgment on the merits in one case, is settled for all cases between the same parties. The winning party is bound by the specific determinations upon which the judgment in his favor rested and may not question the soundness of these determinations in a later proceeding where it may be to his interest to do so. And the losing party is likewise bound by any specific determination made against him. It is only essential that the specific determination thus regarded as conclusive shall have been material to the decision rendered in the first case. And a specific determination can not be considered immaterial merely because the first judgment could have been based on other grounds, if it was in fact based on this one, or because it was in fact based on other grounds as well as on the one in

question. It is immaterial whether the two suits pertain to the same or to entirely different matters. Identity of the demand or cause of action in the two proceedings does not figure in the application of this rule. For example, a specific determination of any fact in a trademark opposition might well bind the parties as to that fact in a patent interference.

In *Wilson's Executor vs. Deen*, 121 U. S., 525, a second suit on a different cause of action was held to be barred because it presented for determination merely the validity of a certain lease which had been found invalid in disposing of the different demand of the first suit. The court said of the prior judgment that it—

. . . determined not merely for that case, but for all cases between the same parties, not only that there was nothing due for the rent claimed for the month of December, 1873 (the demand of the first case), but that the lease itself was procured by fraud and therefore void.

In *New Orleans vs. Citizens Bank*, 167 U. S., 371, Justice White said:

. . . The estoppel resulting from the thing adjudged does not depend upon whether there is the same demand in both cases, but exists, even though there be different demands, when the question upon which the recovery of the second demand depends has under identical circumstances and conditions been previously concluded by a judgment between the parties or their privies.

See also *Werlein vs. New Orleans*, 177 U. S., 390; *Harding vs. Harding*, 198 U. S., 317; *Southern Pacific Railway vs. U. S.*, 168 U. S., 1, and Black's "Judgments," Paragraphs 609-632, and 23 Cyc., pages 1288-1323.

In applying this first rule of subject-matter it is very important to bear in mind that two different specific points often may be generalized in the statement thereof until an identity of statement is reached, but that an identity of the question previously decided with the one thereafter presented, which depends upon this

process of generalization to bring it about, is not sufficient to bring the case under this rule.

In *Nesbit vs. Riverside*, 144 U. S., 610, there was a second suit, regarding some bonds, between the same parties in the same relation of plaintiff and defendant. The cause of action was different in the two cases and the question of *res adjudicata* turned upon whether the same fact was presented for determination in both cases. The defendant lost the first case on the ground that certain recitals in the bonds relieved the plaintiff from an investigation of the total amount of the bonds issued. This investigation would have shown that the issue of the bonds was illegal and made the plaintiff not a *bona fide* holder. The defendant successfully urged in the second suit that the amount of the bonds purchased by the plaintiff was sufficient in itself to make their issue illegal. The Supreme Court recognized that each case turned on the *bona fides* of the plaintiff in one and the same purchase of bonds, but looked beyond this to the more specific questions which were presented by the defendant in the two cases. These being entirely different, the court held that the second contest was not barred. The finding upon the question of *bona fides* was a deduction in each case from a more specific finding which was the actual specific determination. The specific question raised by the defendant in the second suit was not available to the defendant in the first suit because the plaintiff did not there disclose the total amount of the bonds which she had purchased, but this fact though dwelt upon in the decision was probably not essential to the overruling of the plea of *res adjudicata*.

In *Washington, Alexandria & Georgetown Steam Packet Co. vs. Sickles*, 24 Howard, 333, Sickles was plaintiff in two successive actions for royalties for the use of an invention. The demands and causes of action were held to be different so that the question of *res adjudicata* turned upon whether some fact which was essential to the second case had been decided in the first case. The defendant, in the second case, denied the validity of the contract. The plaintiff, having prevailed in the first case upon the same contract, contended, in the second case, that the validity of the contract was specifically determined by the prior judgment. The

court held that the validity of the contract might have been specifically litigated in the first case, but that, so far as appeared, it might not have been specifically litigated there. The fact that the first case did not show an actual contest and consideration of the specific question raised for contest in the second was held to avoid the bar of *res adjudicata*, although it would seem as though the prior judgment must have rested on an assumption, if not a finding, that the contract existed and was valid. The court said of the prior suit in such cases:

“The inquiry is competent whether the same issue has been tried and settled by it.”

The case of *Davis vs. Brown*, 94 U. S., 423, illustrates the same point. Two successive suits were brought by Davis against Brown as an indorser upon different notes of the same series. Brown's defense in the first suit was that the maker of the notes had not been sued. The court held that suit against the maker was not necessary and entered judgment for Davis. Brown's defense to the second suit was an agreement with Davis by which Brown was exempt from responsibility upon his endorsements. Davis urged that this defense was not open to Brown because it had not been advanced in the first suit. The Supreme Court held that the new defense was not barred, saying:

“When a judgment is offered in evidence in a subsequent action between the same parties upon a different demand, it operates as an estoppel only upon matter actually at issue and determined in the original action.”

At first glance it might seem as though the second case turned upon the same question as the first case; namely, whether Brown was responsible to Davis as an indorser. But this is a general statement covering two different specific questions, one of which was the question actually considered in the first case, and the other, the specific question offered in the second case.

The leading case of *Cromwell vs. County of Sac*, 94 U. S., 351, presents a similar situation. A first action upon the coupons of some bonds was defeated upon

proofs that the issue of the bonds was fraudulent, there being no evidence that the plaintiff was a purchaser without notice of the fraud. In the second action upon other coupons of the same bonds, the same plaintiff advanced proofs that he was a purchaser without notice. The defendant contended that these proofs were barred by the prior litigation, but this contention was overruled on the ground that the specific matter now offered by the plaintiff had not been considered in the prior case. Mr. Justice Field, speaking for the court, said:

“ . . . Where the second action between the same parties is upon a different claim or demand, the judgment in the prior action operates as an estoppel only as to those matters in issue or points controverted, upon the determination of which the finding or verdict was rendered. In all cases, therefore, where it is sought to apply the estoppel of a judgment rendered upon one cause of action to matters arising in a suit upon a different cause of action, the inquiry must always be as to the point or question actually litigated and determined in the original action, not what might have been thus litigated and determined. Only upon such matters is the judgment conclusive in another action.

“It is not believed that there are any cases going to the extent that because in the prior action a different question from that actually determined might have arisen and been litigated, therefore such possible question is to be considered as excluded from consideration in a second action between the same parties on a different demand, although loose remarks looking in that direction may be found in some opinions. On principle, a point not in litigation in one action can not be received as conclusively settled in any subsequent action upon a different cause, because it might have been determined in the first action.

“Various considerations, other than the actual merits, may govern a party in bringing forward grounds of recovery or defence in one action, which

may not exist in another action upon a different demand, such as the smallness of the amount or the value of the property in controversy, the difficulty of obtaining the necessary evidence, the expense of the litigation, and his own situation at the time. A party acting upon considerations like these ought not to be precluded from contesting in a subsequent action other demands arising out of the same transaction. A judgment by default only admits for the purpose of the action the legality of the demand or claim in suit; it does not make the allegations of the declaration or complaint evidence in an action upon a different claim. The declaration may contain different statements of the cause of action in different counts. It could hardly be pretended that a judgment by default in such a case would make the several statements evidence in any other proceeding." *Boyleau vs. Rutlin*, 2 Exch., 665, 681; *Hughes vs. Alexander*, 5 Duer., 493.

Last Chance vs. Tyler, 157 U. S., 683, may be in conflict to some extent with these authorities. The second suit was found to be based upon a different demand, but was held to be barred by a finding of fact in the prior suit which was controlling upon the question raised in the second suit. The defendant had withdrawn his answer in the prior suit and there was no actual consideration of the question in that case upon specific affirmation and denial. Many other cases can undoubtedly be found to the same effect. *Beloit vs. Morgan*, 7 Wallace, 619, seems also to be in conflict with these cases and cites several authorities which likewise conflict therewith.

The second decision of the Court of Appeals of the District of Columbia in the opposition of Carter Co. against trade-mark registration by Barclay & Barclay (*Barclay & Barclay vs. Carter Co.*, 198 O. G., 238, 41 App. D. C., 240), already twice referred to herein, furnishes an interesting example, in a Patent Office case, of an estoppel upon the successful party to the prior litigation based upon a finding that the same specific matter had been considered and decided against him