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

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BY

WM. A. KINNAN,
Principal Examiner, Division Sixteen,
U. S. Patent Office.

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

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WM. A. KINNAN,
Examiner, Division Sixteen,
U. S. Patent Office.

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 compliated 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 Reckendorfer *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* Deming, 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

A paper read February 11, 1915, before the Examining Corps of the United States Patent Office

BY

N. J. BRUMBAUGH,

First Assistant Examiner, Division Seventeen,
U. S. Patent Office.

G. S. RAFTER, Principal Examiner.

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By

N. J. BRUMBAUGH,
First Assistant Examiner, Division Seventeen,
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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.

Foreign Practice (English).

Referring briefly to the requirements of some foreign governments, it is to be expected that our law should conform most closely 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 Summer 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:

Burden on Public and Courts.

> "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 Slone *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.

Growth of the Modern Claim.

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, 1815, 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 Burrett 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 Thacher 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 reissue 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.* Yeomans 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.* Meyer 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.* Packer, 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.* Ortmayer, 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 patcht 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 sliould 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. 331, 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 Combination.

"The combination with the stitch-forming and cloth-feeding mechanism 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.

Claiming the New Too Broadly.

The second fault above noted is illustrated in the telegraph case of 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 sta e as it cómes 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* Packholder, 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* Halfpenny, 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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BY

C. W. H. BROWN,
Third Assistant Examiner, Division Eighteen,
U. S. Patent Office.

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Patent Office Drawings Relating to Applications

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C. W. H. BROWN,
Third Assistant Examiner, Division Eighteen,
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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 Harlley, 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 sections 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 familar 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, 1907, 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., 2080.

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

BY

E. C. REYNOLDS,
First Assistant Examiner, Division Eighteen,
U. S. Patent Office.

WASHINGTON, D. C.
1915

THE LAW REPORTER PRINTING COMPANY, WASHINGTON, D. C.

Mechanical Processes and Functional Claims

By

E. C. REYNOLDS,

First Assistant Examiner, Division Eighteen,
U. S. Patent Office.

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. G., 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.* Hoosic, 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. G., 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 copending 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.

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NOVELTY

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

BY

M. J. MOORE,
Principal Examiner, Division Nineteen,
U. S. Patent Office.

WASHINGTON, D. C.
1915

THE LAW REPORTER PRINTING COMPANY, WASHINGTON, D. C.

Novelty

By

M. J. MOORE,
Principal Examiner, Division Nineteen,
U. S. Patent Office.

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." (Pennock *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 Elden (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 Staute 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." (Pennock *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. G., 1784; Judson *vs.* Bradford, 16 O. G., 171.) Such use of the invention is usually necessary to demonstrate its operativeness and practicability 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. (Gayler *vs.* Wilder, 10 Howard, 477.) In Carpenter *vs.* Smith (1 Web., 530) on motion for a new trial, Ebinger, C. J., 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; Bamerman *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; Acme 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 now 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 Pennock *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; Marconi *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. G., 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; Tilghman *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 Gayler *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" (Rumpff 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.* Swift & 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 Eidleblute, 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 patentee 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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BY

HERBERT WRIGHT,
Principal Examiner, Division Twenty,
U. S. Patent Office.

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Mechanical Equivalents

By

HERBERT WRIGHT,
Principal Examiner, Division Twenty,
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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 operativeness 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. G., 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 Oehrie *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 Deming 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.* Sheld 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.* Kitselman (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.* U. 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. G., 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 poineer invention

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

Freibacher Chemische Werke Gesellschaft mit beschrankter 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.* Brunswick (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 Mech. 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).
Krutschmitt *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).

Gearing.

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." *Levers* and *springs* 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.* Groesdhel (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. G., 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 beschrankter 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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BY

WILLIAM R. BALLARD,
First Assistant Examiner, Division Twenty-one,
U. S. Patent Office.

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Res Adjudicata as a Ground of Rejection

By

WILLIAM R. BALLARD,
First Assistant Examiner, Division Twenty-one,
U. S. Patent Office.

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 reissue 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

ARTHUR H. GILES,
Principal Examiner, Division Twenty-one,
U. S. Patent Office.

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The Benignant Agency of Construction in the Courts

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ARTHUR H. GILES,

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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 ntroduction, 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 o · High Court of Chancery, pretending particularly · · escribe 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, Household 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 from 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 reissue 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."
>
> Deming 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 *incidently* 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 then 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

JAMES H. COLWELL,

Principal Examiner, Division Twenty-two,
U. S. Patent Office.

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Observations Pertaining to Examiners' Duties and Their Actions with Particular Reference to Rules 65 and 66.

By

J. H. COLWELL,
Principal Examiner, Division Twenty-two,
United States Patent Office.

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 is 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 wabble, 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

F. J. PORTER,
2nd Assistant Examiner, Division Twenty-two,
U. S. Patent Office.

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Foreign Patents and Foreign Applications Mentioned in Sections 4886 and 4887, Revised Statutes

By
F. J. PORTER,
Division X XII, United States Patent Office.

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 obatined. 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.* Noreross, 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 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.* Armour 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 comptroller 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—"Octrooischrift 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 dsitribution 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. 16334[12]—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. 5020[3].

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.* Fottinger, 212 O. G., 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 25065.

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 specificatons 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.

Willcox et al., *vs.* Mfg. Co., 110 Fed. 210.
Kendrick *vs.* Emmons, C. D. 1876, p. 284.

The case of Willcox 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

ARTHUR W. COWLES,

Principal Examiner, Division Thirty-nine,
U. S. Patent Office.

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The Relation of "Novelty" and "Invention" to the Citation of Art

By

ARTHUR W. COWLES,

Principal Examiner, Division Thirty-nine,

U. S. Patent Office.

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. G., 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. 1, 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

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*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-H-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 anlyzing, 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 satsifies 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, Mss. 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 (Reckendorfer *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 Reckendorfer *vs.* Faber."

This definition seems to be a limitation to the Reckendorfer *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, mig'it 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.

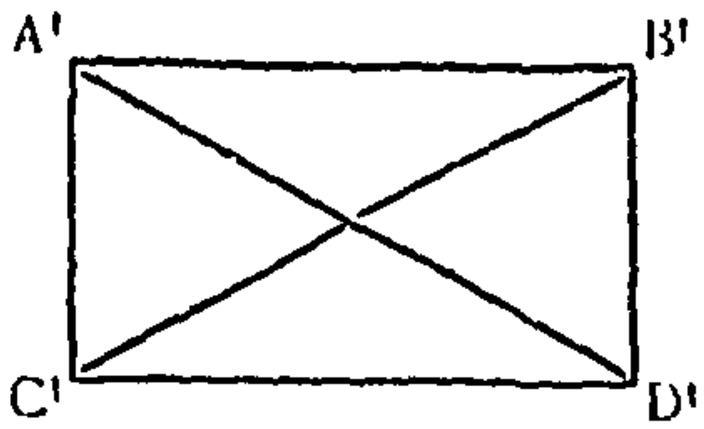
I have referred, in connection with Ex parte Potter, above, to an intimation therein of "disclaimer."

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 exhaustive 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 allowed, 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.

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Res Adjudicata

By
FAIRFAX BAYARD,
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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. R[illegible]son *vs.* City, 101 Fed., 665. But after reversal on appe[illegible] or after any other action vacating the judgment belo[illegible]hat 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 importatnt 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 Barclay & Barclay *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 Barclay & Barclay was held to estop them from questioning the substantial identity of the marks of the two parties in the second proceeding. Barclay & Barclay *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 suppositious, 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 aginst 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 trade-mark 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

in the prior case. The first opposition of the Carter Co. terminated in a judgment for Barclay & Barclay as a result of the failure of the Carter Co. to print its testimony. The judgment was worded "priority of adoption and use of the trade-mark in issue is awarded to Barclay & Barclay." In the second proceeding, which was held proper because Barclay & Barclay had put their application on a ten-year basis after the judgment in their favor in the first case, Barclay & Barclay contended that the mark of the Carter Co. was not substantially identical with their mark. The court held that this was a specific fact which was settled against them by the first decision. A demurrer by Barclay & Barclay, based upon the ground that the marks of the two parties did not conflict, had been overruled.

SUBJECT-MATTER—RELITIGATION OF THE SAME DEMAND AND CAUSE OF ACTION.

The demand is the thing sued for or the relief sought. The cause of action is the fact, or state of facts, upon which the demand is based, considered in connection with the legal right to relief alleged to proceed from such fact or facts. 6 Cyc., 705. The facts or occurrences are not themselves the cause of action, although they are sometimes so designated, nor is the abstract legal right, considered apart from the facts upon which it rests in the particular case. If I trespass on your property, the act of trespass together with the right to damages is the cause of action. Any special injury to the property with the right to further damages therefor would be a different cause of action, though a closely related one. Also, a second act of trespass and the right to further damages therefor would constitute a different cause of action and support another demand.

What may here be called the second rule of subject-matter is the following: After a final judgment upon the merits in one case, the same cause of action can not be relitigated. That the cause of action existed or did not exist is settled by the first judgment, against all further controversy in other cases. The demand of the first suit is put at rest and with it all other demands which amount merely to different views of the same demand and are

part of the same cause of action. The losing party, whether plaintiff or defendant, can not thereafter advance anything, either as pleading or evidence, whether previously advanced or considered or not previously advance or considered, to obtain a different ruling upon the same cause of action. And a defendant must put forth every defense which is available to him to defeat the demand of the plaintiff, except a set-off or counter-claim, and these are also *res adjudicata* if pleaded and adjudicated. 23 Cyc., 1195-1206.

The following cases are examples of the operation of the doctrine of *res adjudicata* to prevent a defeated party from relitigating the same cause of action even though new grounds of recovery or defense are offered in the second case.

In U. S. *vs.* Cal. & Ore. Land Co., 192 U. S., 355, the United States had sued for the recovery of some lands which had been granted by patents. The ground of recovery set up in the first suit was that the patents had become forfeited. The judgment was for the defendant. The United States brought another suit for the lands, this time on the ground that these lands were excepted from the original grant. The court held that both suits were based upon the same cause of action and that the United States was therefore bound to bring forward in the first suit all the grounds that it had for avoiding the patents, and was bound by the decree dismissing that suit. Justice Holmes, speaking for the majority of the court, said:

> . . . the whole tendency of our decisions is to require a plaintiff to try his whole cause of action and his whole case at one time. He can not even split up his claim, . . . and *a fortiori* he can not divide his grounds of recovery.

In Werlein *vs.* New Orleans, 177 U. S., 390, some city lands were sold by the United States marshal upon a judgment against the city in favor of one Klein. The city brought suit before the sale was consummated to prevent the sale, alleging that Klein had assigned his judgment, etc. The city lost. The sale was consummated and the property transferred to Werlein. The city sued

Werlein to recover the land. The new ground was set up that this land was exempt from attachment because of its special public character. The Supreme Court held that this would have been ground for judgment for the city in the prior suit, but that the cause of action in both suits was the same and that the second suit must therefore be dismissed on the ground of *res adjudicata*. Referring to the first suit by the city against Klein, the court said:

> The threatened sale might have been illegal for a number of reasons, based upon widely divergent facts, but whatever those reasons were, the facts upon which they rested were open to proof in the chancery action, and if the city desired the benefit of them, they should have been alleged and proved. It would seem to be quite clear that the plaintiff could not be permitted to prove each independent fact in a separate suit.

In Davis *vs.* Brown, 94 U. S., 423, the following clear statement of this principle is found as a dictum:

> So far as the demand involved in an action is concerned, the judgment has closed all controversy; its validity is no longer open to contradiction, whatever may have been said at the trial for or against it. The judgment is not only conclusive as to what was actually determined respecting such demand, but as to every matter which might have been brought forward and determined respecting it.

See also Dowell *vs.* Applegate, 152 U. S., 327; also St. Louis *vs.* Wabash, 152 Fed., 849 (C. C. A.), wherein it was held to be:

> . . . the indubitable rule of law that in a second suit between the same parties or those in privity with them upon the same claim or demand, a judgment on the merits is conclusive, not only as to every matter offered, but as to every admissible matter which might have been offered to defeat the claim or demand.

The important patent case of Bradley *vs.* Eagle, C. D., 1894, page 12 (C. C. A.), is an example of the rule in operation against a losing defendant. The court held that a new defense of invalidity which could have been offered in a prior suit between the same parties upon the same patent does not escape the rule of *res adjudicata*. The second suit was necessary in order to reach parties who were in privity with the defendant in the first suit but were not named therein.

In the leading case of Cromwell *vs.* County of Sac, 94 U. S., 351, the rule in those cases where two suits are based upon the same cause of action is fully stated. Referring to the first judgment Justice Field said:

> . . . It is a finality as to the claim or demand in controversy, concluding parties and those in privity with them, not only as to every matter which was offered and received to sustain or defeat the claim or demand, but as to any other admissible matter which might have been offered for that purpose. Thus, for example, a judgment rendered upon a promissory note is conclusive as to the validity of the instrument and the amount due upon it, although it be subsequently alleged that perfect defences actually existed, of which no proof was offered, such as forgery, want of consideration, or payment. If such defences were not presented in the action, and established by competent evidence, the subsequent allegation of their existence is of no legal consequence. The judgment is as conclusive, so far as future proceedings at law are concerned, as though the defences never existed. The language, therefore, which is so often used, that a judgment estops not only as to every ground of recovery or defence actually presented in the action, but also as to every ground which might have been presented, is strictly accurate, when applied to the demand or claim in controversy. Such demand or claim, having passed into judgment, can not again be brought into litigation between the parties in proceedings at law upon any ground whatever.

In the following suits where the controversy was whether two cases presented the same or different causes of action, the causes of action were held to be the same.

Werlein *vs.* New Orleans, 177 U. S., 390: This is the case already mentioned where the city sued one Klein to prevent him from having some city lands sold to satisfy a judgment against the city. The city lost and the lands were sold. The city then brought suit against a purchaser to recover them. The ground of the first suit was that Klein had assigned his interest in his judgment against the city, and in the second, that the lands were not alienable for the city's debts. The Supreme Court held that the sole cause of action in the first suit was the supposed illegality of the threatened sale and that the sole cause of action in the second suit was the supposed illegality of the consummated sale and that these were the same thing in different forms. Justice Peckham said:

> The demand in the later case is simply altered to conform to the fact that there had been a sale of the property.

In Dowell *vs.* Applegate, 152 U. S., 327, a second suit was brought for a portion of the land that was sought in the first suit. The plaintiff having failed in the first suit based the second suit on a title to the portion of the land to which this suit related, which did not apply to the entire land. It was held that the cause of action in the two proceedings was the same.

Also U. S. *vs.* Cal. & Oregon Land Co., 192 U. S., 355, and Stockton *vs.* Ford, 18 How., 418.

In the following suits causes of action were held to be different:

Nesbit *vs.* Riverside, 144 U. S., 610. The holder of five bonds issued at one time as part of a series, first sued on the coupons of two of the bonds and won. He then sued upon all of the bonds. Justice Brown said:

> Each coupon is a separate promise and gives rise to a different cause of action. It may be detached from the bond and sold by itself. Indeed the title to several matured coupons may be in as many different persons, and upon each a

distinct and separate action may be maintained.

. . . . . .

Though the promises are upon the same paper they are as distinct as if in different instruments.

In Cromwell *vs.* County of Sac, *supra*, suits upon different coupons of the same bonds were held to be based upon different causes of action.

In Davis *vs.* Brown, 94 U. S., 423, successive suits upon different notes of the same series and all subject to the same agreement were held to be based on different causes of action.

In Washington *vs.* Sickles, 24 Howard, 333, suits for different installments of royalty for the use of an invention were held to present different causes of action.

The interesting question at this point is: What is the cause of action in a contested case in the Patent Office? In a patent interference the cause of action of any party is believed to consist of all his inventive acts (so far as relevant to a decision upon the issue) which led to his production of the specific thing upon which the issue rests in his application, taken in connection with his right to an award of priority if his opponent was not prior to him in the invention of the subject-matter of the issue. The filing of his application, where offered as a constructive reduction to practice, is included as one of his inventive acts. And an applicant's right to have a patent granted to him for the invention in issue, in the event that he is the prior inventor thereof, is probably a part of his cause of action along with his right to an award of priority under such circumstances. It is believed, therefore, that each party to a patent interference has a cause of action which is substantially independent from that of his opponent. The patent interference in this respect is unlike the ordinary action or suit in the courts, but as has already been stated, resembles a suit in which a defendant asserts a counter-claim, or in which a cross-bill has been filed demanding affirmative action for the defendant. Upon the issue of originality, in those cases where the invention has only been made once and the question is which party is the inventor, the causes of action of both parties are founded

in the same occurrences; but each party's alleged right to an award of priority, taken in connection with the facts as he alleges them, probably constitutes his cause of action. In trade-mark interferences and in oppositions the cause of action is likewise double; consisting of each party's claimed right to an award, or to registration, as founded on the facts which he alleges in support thereof. In interferences in which a patent or registration is involved, and in applications for cancellation of a registration, the patentee or registrant is believed to have substantially the same cause of action against his opponent as he would if he were an applicant. The statute gives him a right to an adjudication in his favor if he is the first inventor or real owner, and this right coupled with the facts upon which he rests this right would seem to constitute a cause of action separate from that of his opponent.

An example in the Patent Office of consideration barred because the same matter could have been offered in a prior proceeding upon the same cause of action, would be presented if a losing party should seek a second interference on the same issue, in order to prevail by proofs regarding a prior machine which he did not attempt to prove in the former proceeding; also, if he should seek a second interference in order to take testimony for the purpose of showing for the first time concealment of his opponent's invention after reduction to practice. The second contest in such cases would so clearly be barred by the law of *res adjudicata* that it is not often pressed, and I know of no published decisions where such simple cases were presented.

A situation has arisen, however, where the question of a second interference is believed to be solved by the rule against successive litigation of the same demand and cause of action. The assignee of two independent inventors, after losing an interference with another party upon the application of one of his assignors, sometimes seeks another interference with the same opponent upon the same invention in order to present the case of his other assignor. The assignee seeks to present in the second interference, as the basis of his demand of a patent, a set of inventive acts entirely independent of those which he presented in the first

interference. He is setting up the claimed patent right of another person and, therefore, a different claimed patent right. It seems to me that he is asserting a different cause of action and that, regarding him merely as the plaintiff in both interferences, the rule of *res adjudicata* would not apply, although Dowell *vs.* Applegate, *supra*, may indicate that it would. But regardless of this authority, the second interference in such cases is believed to be clearly barred by the fact that the second interference would relitigate the same cause of action of the opponent of the assignee of two inventors that was litigated in the first contest. As the rule of *res adjudicata* is enforced primarily to prevent a party who presents his case and wins, from being drawn through another contest and deprived of his victory, by an opponent who failed to present his whole case, it would seem that the right of the assignee of two inventors to present his different cause of action in a second case, would have to give way to the right of his opponent to regard his single cause of action, and the single demand which he rests thereon, as finally settled by the first judgment. In short, the position of the assignee of two inventors as a defendant in the first interference made it his duty to oppose every defense at his command to the demand of his plaintiff opponent, and it seems to do greater violence to the reasons for the rule of *res adjudicata* to disregard this duty of his as a defendant, than to disregard his possible right as a plaintiff to present his different causes of action in two successive interferences. The following decisions holding that two interferences can not be had under these circumstances are believed to be justified upon these considerations: *Ex parte* Temple & Goodrum, 76 O. G., 526; Frickey *vs.* Ogden, 199 O. G., 307.

The question of identity of cause of action came up in the trade-mark opposition of Carter Co. *vs.* Barclay, 162 O. G., 785, 36 App. D. C., 123. The Carter Co. opposed the application for registration of Barclay on the ground that the opposer was the owner, by prior adoption, of an equivalent mark. A general judgment was rendered against the opposer as a result of its failure to print its record. Barclay's application was then rejected on the ground that the mark was non-technical,

whereupon Barclay filed an affidavit to the sole use for ten years which justifies registration of non-technical marks. The Carter Co. brought another opposition which the Office held to be barred by the rule of *res adjudicata*. The Court of Appeals held, however, that the cause of action in the second case was different, as a result of the applicant's action after the first judgment setting up the ten years of sole use, and that the second contest was not barred. The court evidently considered the applicant to be in the position of a plaintiff who first demanded a technical registration and then demanded a ten year registration, and taking this view and regarding these as distinct demands, was bound to find that the opposer's defence on the ground that the applicant was not the first to adopt and use did not preclude the opposer from later defending on the ground that the applicant did not have the necessary ten years of sole use.

SUBJECT-MATTER—THE SPLITTING OF UNITARY DEMANDS AND CAUSES OF ACTION.

A plaintiff may not divide a unitary demand or cause of action into parts and sue successively upon the different parts, even when he is successful in the first suit. This may be called the third rule of subject-matter. The law upon this subject is concisely indicated in the following extracts from the Cyclopedia of Law and Procedure, Vol. 23, pages 1174, 1178, and 1180:

> Where a demand or right of action is in its nature entire and indivisible, it can not be split up into several causes of action and sued piecemeal, or made the basis of as many separate suits; but a recovery for one part will bar a subsequent action for the whole, the residue, or another part. A particular application of this rule is that a party who has an entire claim which exceeds in amount the jurisdiction of a justice of the peace, and who, to bring his action within such jurisdiction, divides it into several portions, is barred by his first recovery and can not afterward sue for the remaining portions. Neither can a party, by

assigning a part of his claim to another, divide an entire cause of action so as to sustain more than one suit upon it.

. . . . . .

An entire claim arising from a single tort can not be divided and made the subject of several suits; a judgment upon the merits in respect to any part will be available as a bar in other actions arising from the same cause, the rule being that plaintiff must include in the one action all the various items or elements of his damage, and recover all the compensation he is entitled to for each and all of such items, including prospective damages in cases where the injury was single, complete, and not repeated.

. . . . . .

The rule prohibiting a multiplicity of suits has no reference to a case where the party has no knowledge of his means of redress; and a former recovery does not bar claims of which plaintiff was ignorant, although they existed at the time and might have been joined. And some of the decisions extend this exception to claims or items omitted by plaintiff, not through ignorance of them, but by mere mistake. But the general rule is that a party who inadvertently, or by his own negligence or mistake, and without fault or fraud of the adverse party, takes judgment for a sum less than his actual claim, is estopped to bring a second action for the residue. And the same result follows where claims or items were omitted in consequence of the mistake or erroneous decision of the court or a referee.

A party is not ordinarily prohibited from pressing distinct matters in successive proceedings. See Black's "Judgments," Vol. II, sec. 732, and the cases cited in Note 333. The author quotes from Eastman *vs.* Porter, 14 Wis., 37, which states, referring to the rule of *res adjudicata*, that it—

> . . . is limited in its application to those matters which the parties, under their pleadings

and the issue joined in the former action, might legitimately have controverted and have had decided by the verdict and judgment, and has never been so extended as to compel one party, having several different causes of action against another, to join them in one action because they were of such a character that the law would permit their union.

The rule against the splitting of a unitary demand or cause of action best explains the practice of Blackford *vs.* Wilder, 127 O. G., 1255, 28 App. D. C., 535; Wende *vs.* Horine, 129 O. G., 2858, 29 App. D. C., 415; and *In re* Marconi, 179 O. G., 577, 38 App. D. C., 286. These decisions deny the losing party to an interference the right to advance, after the interference, a claim which will dominate the issue of the interference. Priority upon the narrower claim does not show priority upon the broader claim as a matter of fact, because the broader claim may be proved by earlier inventive acts which were not relevant to the narrower claim. It follows that a second interference upon a broader claim would not be a relitigation of the same identical demand. But dominating and dominated claims, reading as they do upon the same specific construction in either party's application, and both controlling the manufacture, sale, and use of the same specific construction, may well be considered as the parts of a unitary subject-matter of litigation; and the demand for both sets of claims, as a unitary demand. As one part of this subject-matter has passed into the possession of the successful party to the interference by virtue of the judgment in his favor, the rule against the successive presentation of different parts of a unitary demand applies to estop the losing party from thereafter advancing the other part.

The same or equivalent reasoning supports the practice of Carroll *vs.* Hallwood, 135 O. G., 896, 31 App. D. C., 165, by which the losing party is estopped from advancing any claim which is dominated by the issue if it reads upon the disclosure of the successful party.

The general rule against the splitting of demands applies to successful parties as well as to those who are defeated. A plaintiff though he have a good case may not

unnecessarily harass his opponent by presenting piecemeal demands, as is pointed out in the above quotations from the Cyclopedia of Law and Procedure. How then do we explain our practice of allowing the successful party to an interference to advance claims after the interference which dominate the issue or are dominated thereby? In the ordinary case in court, the defendant is in possession. The successful plaintiff gets what he asks for in the first suit. It is impossible to give him anything else which he may later demand, without taking the same out of the possession of the defendant and this is what the courts are unwilling to do. In the ordinary case in the Patent Office, a claim advanced by one party after the interference has not been made by the other party. It is something which has not been in the possession of either party. In awarding to the successful party in such cases the newly advanced claim which dominates or is dominated by the issue, nothing is taken from the losing party which has been in his possession. There is good reason why the losing party can not have such claims, as we have seen. But there appears to be no reason why the winning party should not have them under the circumstances stated.

It would seem, however, where the losing party had advanced the dominating or dominated claims before the termination of the interference, and particularly where they had been granted to him in a patent, that the situation is entirely analogous to the ordinary case in court where a winning plaintiff is estopped from disturbing the losing party in the possession of anything which is so closely associated with what was asked for in the first suit as to form therewith the subject-matter of a unitary demand. It has been held, however, in the case of Cross *vs.* Rusby, 204 O. G., 321, 42 App. D. C., 341, that the winning party could take the broad claims of his opponent which were not placed in issue, even though his opponent had these claims in a patent at the time of the judgment in the first interference. The law of unitary demand was not discussed in this decision. The fact that in Cross *vs.* Rusby the patent of the losing party was not in the interference, and possibly not known to the winning party before the judgment in the interference, leaves it an open question whether a winning party

may assert after the interference claims dominating the issue, or dominated thereby, which were standing in the losing party's application or patent in interference during the interference.

New claims advanced after the award of priority has become final which do not dominate the issue and are not dominated thereby may be directed entirely to a part of the structure or process disclosed by both parties which is different from that to which the issue was directed; or they may be claims which are broader than the issue in some respects and narrower in others. In either event, it would seem that they would be governed by the same considerations above set forth for claims which dominate the issue and are dominated thereby, *if the subject-matter thereof is essential to the full enjoyment of the invention in issue.*

In other words, all matter common to both parties' inventions which is essential to the full practical enjoyment of the matter in issue naturally forms with the matter in issue a unitary subject of litigation. All possible claims to such matter form with the claims in issue a unitary subject of demand. Each party to the interference stands as a plaintiff demanding the claims in issue. A judgment for one party upon the issue puts the subject-matter of the issue into his possession, and the other party stands as a losing plaintiff who is barred from interfering with the full enjoyment of the subject-matter in issue by the successful party by thereafter advancing any other portion of the same unitary demand. The successful party may advance such claims, however, if these claims were not obtained or advanced by the losing party before the judgment in the interference, and possibly even then, as appears from Cross *vs.* Rusby, *supra*.

Claims which do not interfere with the full practical enjoyment by the winning party of the specific structure or process upon which the issue rests in his application may be advanced by the losing party as well as by the successful party, so far as any principle of *res adjudicata* is concerned, of which I am aware. It seems impossible to regard the subject-matter of such claims and the subject-matter of the issue as the parts of any unitary whole. The only reason for preventing a second interference in

such cases that would not equally apply to bar any second litigation in court of matter which was available for litigation at the time of a first suit or action between two parties, must be found in the fact that the Patent Office can not assess costs, and in the fact that the second interference *may* result in delay in the issue of a patent upon the subject-matter of the first interference; though it could hardly *necessitate* any delay in such cases. It has been suggested that the losing party to the first interference may be regarded as estopped in these cases by the general doctrine of estoppel *in pais* because of the injury to his opponent in the facts just noted. Injury to another arising from the failure of a party to speak when he should speak ordinarily estops such party from speaking later. This suggestion carries conviction in those cases where the unsuccessful party advances, after the interference, claims which were in his opponent's application during the interference. But it is not clear, when neither party had the new claims during the interference, and such claims do not interfere with the full enjoyment of the subject-matter in issue in the first interference, that the hardship upon the successful-party incident to a second interference would be due any more to his opponent's inaction than to his own. He had the same opportunity to advance claims to the different subject-matter during the prior contest that his opponent had, and apparently the same duty to do so then if ever, if there is any such duty under such circumstances.

The case of New Departure Co. *vs.* Robinson, 188 O. G., 1055, 39 App. D. C., 504, appears, from the claims quoted in the decision, to be a case in which the claims in the two interferences overlapped so that neither set of claims dominated the other. I have not attempted to determine whether the structure which supported the claims of the second interference, in the application of the successful party to the first interference, was essential to the full practical utilization of the structure which supported the claims of the first interference in his application. This point was not discussed in the decision, but the subject-matter of the two sets of claims was so closely interrelated that this may well have been assumed to be the case. The losing party to the first

interference was held to be estopped from presenting the new claims.

THE EFFECT OF A DIFFERENCE OF FORUM — OR OF A DIFFERENCE IN THE CHARACTER OF THE TWO PROCEEDINGS.

Whether judgments of the courts of foreign countries bar litigation of the same matter in this country appears to be somewhat unsettled. They are sometimes accepted as final determinations and sometimes not; in some cases they are given *prima facie* effect, and in some cases they are taken as persuasive. In Hilton *vs.* Guyat, 159 U. S., 113, it was held that the judgment abroad should be accepted as conclusive on the merits unless some special ground is found for impeaching it. See 23 Cyc., 1602-1611.

A final judgment on the merits by a competent court in one state is conclusive on the merits in the courts of every other state between the same parties. This is required by the "Full Faith and Credit" clause of the Federal constitution (Const. U. S., Art. IV., Par. 1; see also Rev. Stat., Sec. 905.) and is enforced by the Supreme Court of the United States. Harding *vs.* Harding, 198 U. S., 317; Carpenter *vs.* Strange, 141 U. S., 87; 23 Cyc., 1546 (b), 1551 (II), and 1553 (b).

The same rule applies between the courts of the different Federal circuits. In Rubber Co. *vs.* Milwaukee, 154 Fed., 358, it was said by the circuit court of appeals of the seventh circuit, referring to a suit in the sixth circuit on a patent to Grant:

> . . . The defendant in that particular suit has a decree on which, if he were again sued on the Grant patent, he could base a plea of *res adjudicata*. That plea would be as good in other circuits as in the sixth.

In Kessler *vs.* Eldred, 206 U. S., 285, Kessler had prevailed in a prior suit brought by Eldred for the infringement of a patent. Mr. Justice Moody, delivering the opinion of the court, said of the prior judgment:

> This judgment, whether it proceeds upon good reasons or upon bad reasons, whether it was right

or wrong, settled finally and everywhere and so far as Eldred, by virtue of his ownership of the Chambers patent, was concerned, that Kessler had the right to manufacture, use and sell the electric cigar lighter before the court. The court having before it the respective rights and duties on the matter in question of the parties to the litigation, conclusively decreed the rights of Kessler to manufacture and sell his manufactures free from all interference from Eldred by virtue of the Chambers patent, and the corresponding duty of Eldred to recognize and yield to that right everywhere and always.

The judgments of the Federal courts are binding between the same parties in the State courts. Dowell *vs.* Applegate, 152 U. S., 327. And the judgments of the State courts are binding between the same parties in the Federal courts. Stout *vs.* Lye, 103 U. S., 66; Briar *vs.* Campbell, 177 U. S., 649; Fayerweather *vs.* Ritch, 195 U. S., 277. These rules also are enforced by the Supreme Court of the United States.

Judgments at law are conclusive in equity proceedings between the parties, and decrees in equity are binding in proceedings at law between them. Hopkins *vs.* Lee, 6 Wheat, 109; Werlein *vs.* New Orleans, 177 U. S., 390; 23 Cyc., 1221 (3).

And, in general, it is immaterial, as between different civil proceedings, that the character of the two proceedings is different. Black's "Judgments," Chapter 18, part 3.

The operation of the doctrine of *res adjudicata* between civil cases and criminal cases is concisely set forth in the Cyclopedia of Law and Procedure, Vol. 23, page 1348, as follows:

A judgment or sentence in a criminal prosecution is not admissible in evidence in a subsequent civil suit, although the facts in controversy may be the same, or although the rights of the parties may depend upon the same circumstances, except where the mere fact of conviction or acquittal becomes a relevant circumstance in the

civil suit, and with the further exception that a criminal sentence or acquittal will be admissible in evidence in a subsequent suit, civil in form but penal in character, to enforce a penalty or forfeiture of property against the same defendant, on the same state of facts; and the judgment in the criminal proceedings may be admissible as a species of admission, particularly when entered on a plea of "guilty." Conversely a judgment in a civil action is not ordinarily admissible as evidence in a subsequent criminal prosecution.

Applying these principles to contested cases in the Patent Office, it seems clear that the Commissioner is bound by a decision between the same parties in any State or Federal court. But following the rule which is applied in the State courts, the second proceeding must be instituted and the judgment relied upon must be properly proved in that proceeding. 23 Cyc., 1556 (3). And it would seem that the Commissioner would not be bound where the prior ruling was made in a proceeding in which proof less in character or quantity was required than is required in the proceeding in the Patent Office.

The decision upon priority in an interference will not bar a suit under Section 4915 R. S. to compel the Commissioner to issue a patent to the losing party. And it would appear that nothing determined in the interference would be *res adjudicata* in such a suit. In the decision of the Supreme Court in Morgan *vs.* Daniels, C. D. 1894, page 285, referring to a suit under Section 4915 R. S., the Court said:

> It is a controversy between two individuals over a question of fact which has once been settled by a special tribunal (the Patent Office), intrusted with full powers in the premises. As such it might be argued, were it not for the terms of the statute, that the decision of the Patent Office was a finality upon every matter of fact.

And it was held that the decision in the original in-

terference proceeding, though entitled to very great weight, was not absolutely binding.

The same doctrine seems to have been extended to ordinary suits for infringement under Section 4920 R. S. When the losing party to an interference is sued by the successful party for infringement, the decisions indicate that the defendant is not precluded from raising the same question of priority that was litigated in the interference. Computing Scale Co. *vs.* Standard Scale Co., 195 Fed., 508 (C. C. A. 6); Hillard *vs.* Remington, 186 Fed., 334 (C. C. A. 2); Novelty *vs.* Brookfield, 170 Fed., 946 (C. C. A. 3); Roth *vs.* Harris, 168 Fed., 279 (C. C. A. 2). These decisions are not satisfactory upon this point. The conclusion is reached without discussion, apparently upon the authority of Morgan *vs.* Daniels, *supra*. But Morgan *vs.* Daniels was based upon the fact that the proceeding under Section 4915 is particularly authorized by statute for the purpose of reconsidering the same matter between the same parties and is believed to have no application to the suit under Section 4920. Section 4920 R. S. deals with the rights of defendants generally. It does not purport to accord to parties who have failed in an interference any right of relitigation in contravention of the rule of *res adjudicata*, as does Section 4915. In Davis et al. *vs.* National Co., 164 Fed., 191 (C. C. A.), it was held that the doctrine of *res adjudicata* did not apply in these cases because of the interest of the public, but it would seem that the public would be fully taken care of by the right of any other member thereof than the defeated interferant, when sued, to make any proper defense.

In National Co. *vs.* Wheeler, 79 O. G., 1863 (C. C. A., 2), it was suggested that the doctrine of *res adjudicata* might apply in these cases, and this seems to me to be the correct conclusion. Even if it be held that the suit for infringement and the interference proceeding present different demands and different causes of action, any specific matter offered for determination in the interference and actually determined therein, as a basis for the decision upon priority, would seem clearly to be conclusively and finally determined, by the operation of the general principles of the doctrine of *res adjudicata* hereinabove discussed.

The authorities cited hold, and without question rightly hold, that the losing party to the interference is not ordinarily barred, when sued by the successful party for infringement, from setting up non-infringement, anticipation by the prior art other than his own alleged prior invention, or want of invention.

COLLATERAL ATTACKS UPON JUDGMENTS.

The general rule is that a judgment must be attacked directly in the same proceeding in which it was rendered or in some other special proceeding which is recognized as a proper proceeding for that purpose.

> The judgment is not open to contradiction or impeachment, in respect to its validity, verity, or binding effect, by parties or privies, in any collateral action or proceeding. 23 Cyc., 1055.

Exceptions are made, however, where the prior judgment was rendered by a court which did not have jurisdiction of the subject-matter (23 Cyc., 1070, et seq.), or of a party thereto. And exceptions are sometimes made where there was fraud in the very act of obtaining the judgment. But a party can not show in a second interference that a concession upon which the judgment against him in the first interference was based, was obtained by duress. Nelson *vs.* Felsing, 142 O. G., 289, 32 App. D. C., 420.

SUMMARY.

A brief review will serve as a conclusion. To render legal proceedings effective and to prevent them from becoming unduly burdensome, the right to further litigate after a first determination has been restricted in many ways. Certain of the most important rules or principles which are directed to this end constitute what is known as the doctrine of *res adjudicata*.

The distinctive characteristics of this doctrine are that it applies only after a judgment which must have been (1) final; (2) on the merits, actually or constructively, and (3) in a proceeding between the same parties.

The operation of this doctrine is to bar further litiga-

tion (1) of any matter specifically decided by the judgment or as a basis therefor; (2) of the same demand or cause of action, and (3) of any part of the same unitary subject of demand of which the prior demand is also a part.

Collateral characteristics of the doctrine are (1) that it applies between proceedings in different States, in different Federal circuits, and between State and Federal courts, and (2) that it applies in general between different proceedings regardless of a diversity in the character thereof.

An exception to the doctrine is made, and a judgment is open to attack in an independent proceeding, in cases where the judgment is absolutely void because the court did not have jurisdiction of the subject-matter or of a party, and sometimes where there was fraud in the very act of procuring the judgment.

April 22, 1915.

TRADE-MARKS

A paper read April 29, 1915, before the Examining Corps of the United States Patent Office

BY

J. H. CARNES,
Examiner of Trade-Marks and Designs
U. S. Patent Office.

WASHINGTON, D. C.
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THE LAW REPORTER PRINTING COMPANY, WASHINGTON, D. C

Trade Marks

By

J. H. CARNES,
Examiner of Trade-Marks and Designs.

A trade-mark may be generally defined as a convenient way of disclosing the commercial source or origin of goods which are sold in trade. The means commonly employed for this purpose is either a word or symbol, or a combination thereof. There is a popular impression that a trade-mark is a rather recent device for indicating the origin of goods. While it is true that during the last thirty years there has been a very great increase in the use of trade-marks in this and foreign countries that have extensive commerce, it is not true that such use is in any way novel to these countries.

Excavations establish that the Egyptians, Phœnicians, Romans, and Greeks all used marks to identify their products sold in trade. As we know, the Romans were great traders and their marks are found on many of their products, such, for instance, as lamps, food delicacies, and eye salves. Sometimes these marks were the names of the slaves who made the articles, but the representations of animals and other objects were also used. From excavations in Pompeii, small jars containing fish sauces and charred loaves of bread have been found bearing the marks of the manufacturer.

During the middle ages marks were commonly used by the skilled artisans of the guilds, and particularly by the publishers of books.

Coming down to modern time, we find that in this country the extensive use of trade-marks is substantially coincident with the present era of commercial expansion. This period is fairly well identified by the commencement of extensive litigation in connection with the use of these marks. The books show this to be late in the eighties, or about thirty years ago. It was not until 1845

that any State of the United States possessed any laws relating to the improper use of trade-marks. The first federal law providing for registration was that of the act of 1870, which was held to be invalid. The present law of 1905 superseded the act of 1881, which in many respects it resembles.

The first recorded trade-mark case is said to have occurred about the time of Queen Elizabeth. The first recorded American trade-mark case proper was decided in the year 1837, and since that date up to and including the year 1870, but sixty-two cases were recorded. ("Good Will, Trade-Marks, and Unfair Trading," page 49, by Edward S. Rogers.) Since 1890, however, there has been an enormous increase in the number of recorded cases and it is still increasing.

The definition of a trade-mark previously given, was not intended as a technical one. Many attempts to affirmatively define a trade-mark have been made. Some of these are given by the United States Supreme Court in the cases of McLean *vs.* Fleming, 13 O. G., 913, 96 U. S., 215; Columbia Mill Co. *vs.* Alcorn et al., 65 O. G., 1916, 150 U. S., 460; and the other cases cited therein. Nevertheless, each writer seems to find it necessary to make a new definition, and in deference to this custom the following one is given: A trade-mark is a means capable of exclusive use by a trader and affixed to the goods sold for the purpose of enabling the purchasing public to identify these goods. The necessity for identification is obvious where the goods are made by more than one person. Where the goods are all made by one person, as, for instance, the paper used by this Government for making its money, there is no necessity or function for a trade-mark. It is equally obvious that there would be no incentive to make a good article unless the buyer could definitely ascertain its source. The converse is equally true, that no one who makes an inferior article and sells it desires to identify it as his product. The buyer who is satisfied with the product and the way in which the business is conducted by the trader, becomes a regular customer. It is this friendliness of the buyer that is the basis of all good will in trade. In fact, good will in trade may be defined as the collective friend-

liness of all the buyers of an article. From the standpoint of the trader, the creation and preservation of this good will may be said to be his ultimate object in adopting the mark. Under modern conditions of production and distribution, the market is often an exceedingly extensive one. This good will may become, therefore, a property right of great value, sometimes exceeding all the other assets of the business. It is only as a trade-mark is representative of this good will that it has any value. This varies from time to time directly as the amount of this good will. Increase this good will and the value of the mark increases accordingly. Destroy it, and the value of the mark is completely destroyed.

Thus, "IVORY" for soap, "ROYAL" for baking powder, "UNEEDA" for soda crackers, and "KODAK" for cameras, are all well known trade-marks of great value. Pobably the value of each of them is in excess of $1,000,000 for each letter in the word. This value does not depend in any way upon the nature of the words chosen, because there are thousands of names which could equally well have been selected instead of the ones actually chosen, without in any way affecting the identification of the goods. The value of each of these marks depends solely on the good will which each, when used in connection with the respective products, symbolizes to the regular buyers of these products. It is a very true measure of their appreciation of the product.

TRANSFER OF THE TRADE-MARK RIGHT.

It has been previously pointed out that a trade-mark right is property. As such, it has certain inalienable attributes. One of these is the right of the owner to transfer it. The failure to keep clearly in mind the real nature of this trade-mark right frequently results in erroneous notions as to what is transferred, with consequent loss to the transferee. It has been previously pointed out herein that this property is none other than the good will or reputation associated with the business and the abstract mark is the means for symbolizing this good will. The subject-matter to be transferred is therefore no abstract right in the symbol but the good will indi-

cated by the symbol. This good will is necessarily inseparable from the business, and, therefore, it is commonly said that a trade-mark may be transferred only with the business in which it is used. Notwithstanding that this principle is well established by many decisions of the courts it is quite common for persons to treat trade-marks as they do land and chattels. Such attempts are not only absolutely void for the reason just stated, but also on the further ground that they are against public policy in that they obviously tend to promote deception on the public generally.

What has been stated in connection with the transfer of a trade-mark right is also true with regard to licenses or attempts to "farm out" a trade-mark, and for substantially the same reasons. The sale of a man's business and good will carries with it the right to use the trade-marks associated therewith, unless the mark is one peculiarly and essentially personal to the original proprietor. In considering the validity of a transfer, a court looks to the substance and not to the form of the transaction. It is sufficient if it appear that the business and good will associated therewith are transferred.

REGISTRATION.

It has been previously explained that a trade-mark right is created by prior adoption and use in trade and that this right is a common law one. This common law right must exist before any one has the right to file an application for registration of a trade-mark. It is therefore clear that registration can create no right in a trade-mark. (Sarrazin *vs.* W. R. Irby Cigar & Tobacco Co. Ltd., 88 O. G., 387; Einstein *vs.* Sawhill, C. D., 1893, 677; Sleepy Eye Milling Co. *vs.* C. F. Blanke Tea & Coffee Co., 85 O. G., 1905.) A certificate of registration granted by this Office is *prima facie* evidence that the registrant is the owner of the trade-mark right existing before the filing of the application which matured into the registration. (Sec. 16 of the Trade-Mark Act of Feb. 20, 1905.) That is to say, registration under the Federal statute creates a presumption that the title to the trade-mark is in the registrant. This presumption

is, however, not conclusive since the Office may grant at any time to another, a registration for the same trade-mark right if the latter establishes adoption and continuous use in trade as of a date prior to that established by the registrant. Moreover, the registration may be canceled by this Office upon a proper showing. Both of these occurrences are common.

There is a great deal of misunderstanding and confusion in the mind of the public generally regarding the nature of a trade-mark registration. It is commonly assumed that a trade-mark registration is like a patent in that it is in the nature of a grant of a monopoly to use the mark on the goods described. This supposed analogy is false, as just explained. Nevertheless, this idea is deep-seated, and it probably results in the filing in this Office of large numbers of applications for registration that would not be filed if the applicants understood that the analogy is a false one. It seems to the writer that if a brief statement were inserted in the Rules Relating to the Registration of Trade-Marks it would help a great deal in removing this misconception of the general public.

Registrations are of several kinds; namely, Federal, State, and Foreign. Federal registration is limited to those trade-marks used in commerce with foreign nations, among the several States, or with the Indian tribes. It is generally considered preferable to registration by the State, because of the difference in territorial extent. Most of the States of the United States have statutes relating to the registration of trade-marks which are issued under the seal of the Secretary of State. As a rule no anticipatory search is made. It has one advantage over the Federal registration in that it enables the owner of a mark to avail himself of the criminal statute which frequently is the only effective means for handling infringement by a person financially irresponsible, including as it does the imprisonment of the infringer as a part of the penalty. The effectiveness of the criminal statute to discourage infringement has long been recognized in China, where, it is said, the penalty is decapitation.

Foreign registration is, of course, governed by the laws of each country in which registration is obtained. The

laws of the several countries vary considerably from each other and differ fundamentally from our own in one important respect, namely, that the foreign registration partakes of the nature of a grant. In some foreign countries no right to a mark whatever exists prior to registration. The person first to register, rather than the person first to adopt and use in trade, is the owner of the mark. In this country the trade-mark right must exist before the filing of the application that matured into registration. One of the practical consequences to citizens of the United States is that foreign registrants may bar them from using such marks in those countries. Registrations of marks that are well known in this country are frequently obtained in foreign countries with no other object than that of extorting money from the owner of the mark in this country.

The right to obtain the registration in any country by a foreigner is dependent primarily upon international agreement of the nations interested. Representatives of the latter meet from time to time in convention to formulate uniform rules for all the countries represented. The acts of these representatives are usually ratified by the nations. In this country such acts are not self-executing. That is to say, unless ratified by Congress, they are inoperative. (Rousseau *vs.* Brown, 104 O. G., 1120.) An instance of the failure of this country to ratify the act of its representatives is the provision relative to registering collective marks. A collective mark differs from an ordinary trade-mark in that the right to use it is not confined to any single trader and is, therefore, not capable of ownership by the latter. It is generally originated by a community or collection of individuals and its use is restricted to persons for a product which measures up to a predetermined standard of quality. In Denmark and Ireland such marks are in use for butter and lace, respectively. These marks are not registrable in this country but are registrable in some foreign countries, which have adopted the plan of the international convention. The laws of each country usually provide that in order that a foreigner may secure registration, the country to which an applicant belongs must grant reciprocal privileges to citizens of the country

in which registration is sought. The comparatively recent abrogation of the treaty with Russia has been held to preclude citizens of that country and residing therein from obtaining registration in this country.

The process of obtaining a registration under the Federal statutes is in many cases very simple. The application when filed in the Office is searched for registrations that may anticipate it. If none are found, and the mark as used is capable of exclusive appropriation, the application is then published for thirty days in the Official Gazette under the provisions of section 6. Any one who believes himself to be damaged by the issuance of said registration may file a notice of opposition or, if such person claims ownership to the mark in question, he may file an application for registration and request an interference with the other application, or he may do both. If no interference is declared or no notice of opposition filed, the registration is issued in due course. If the search discloses a registration which shows a mark which, in the opinion of the Office, so resembles the mark sought to be registered that concurrent use in trade would be likely to cause confusion and mistake in the mind of the public or deceive purchasers, then registration is refused. When the difficulty of satisfactorily determining what this likelihood is is kept in mind, it is easy to understand why the issue between the Office and the applicant often resolves itself into a nice little academic dispute, wherein one side emphasizes the relative prominence of the differences and the other the similarity of the features common to the two cases. If the Office adheres to its refusal to register, the applicant may still continue it by an appeal to the Court of Appeals of the District of Columbia. From the record before it, neither side can demonstrate that the conclusion of the other is erroneous. In inter partes proceedings, both in the Office and outside of it, the possibility of producing proof of actual confusion in trade by the concurrent use of the marks offers an opportunity to reduce the question to one entirely of fact. Experience shows, however, that the opportunity is not as often made use of, as one would expect it would be.

Still another perlexing question is that which relates to

a likelihood of deception due not to the nature of the mark or the goods upon which it is used but to the matter associated with the mark and found on the label. Courts of equity have long applied the principle that if deception is perpetrated and the perpetrator seeks relief from infringement no relief will be granted. It is immaterial whether the deception results from the nature of the mark or the matter associated with it. The Office also refuses registration in those cases where the matter associated with the mark is misleading or deceptive in character. (Levy & Co. *vs.* Uri, 135 O. G., 1363; The Schuster Co. *vs.* Muller, 126 O. G., 2192.) This commonly is known as "misbranding" and occurs most frequently where the statement is made in connection with a mark used on goods intended for human consumption, such as foods and medicines. It has been held in Barclay & Barclay, 135 O. G., 217, that the Office, although not charged specifically with the enforcement of the Food and Drugs Act should, in a spirit of comity, render such assistance to the Department of Agriculture as will tend to promote rather than place an obstacle in the way of its enforcement. This obstacle may and does arise by reason of the contentions which are made by defendants in suits by the United States for violations of the Food and Drugs' Act. Such defendants, if they have obtained registration for the mark, contend that the allegations on the label were not objected to by the Patent Office and this failure to object led them to believe that they were proper. It is for the purpose of obtaining evidence of misbranding if it exists that the Office requires one specimen for each of the goods for such products as foods and medicines. (Ex parte Sher, 197 O. G., 239.) Where the label contains statements relative to the goods and their properties which are deceptive in character, registration is refused on this ground. The most common cases relate to misbranding of medicines. Some of these are twenty-four hour cure-alls of even the most serious organic troubles, as, for instance, cancer. One instance the Examiner recalls was that of a label which contained the allegation that by applying a plaster to a cancer for not more than twenty-four hours, the cancer, upon the removal of the plaster, would drop out and fall upon the

floor. The applicant obtained and filed the affidavits of three persons who claimed that the allegation was true. Notwithstanding this, the application has not been issued. The impression obtained from reading the statements upon some labels is that it is folly to grow old and a mistake ever to die. It is a significant fact that for over three years not a single applicant appealed from the refusal of the Examiner based on the question of misbranding and many applications have been refused on this ground.

The registrations granted under the act of 1881 may be renewed under the provision of section 12 of the Trade-Mark Act of February 20, 1905, as they are due to expire. The practice followed is that based upon an interpretation of section 12 found in the case of Ewing, Commissioner of Patents *vs.* Standard Oil Company of New York, 203 O. G., 1556, May 22, 1914, decided by the Court of Appeals of the District of Columbia. This practice consists in merely filing a petition by the owner of the registration sought to be renewed, the original certificate of registration and a fee of $10. No drawing is necessary and no examination is made to ascertain whether the mark would be registrable on a new application. The renewal is endorsed on the original certificate which is then returned to the petitioner. If the original certificate is lost, a certified copy of the original made by this Office may be used instead of the original.

Although, as hereinbefore stated, registration does not create any trade-mark rights, it may be said to create certain rights of procedure which may or may not be valuable, depending upon the nature of the business and the circumstances of the trader. If the business of the trader extends, or is likely to extend, to foreign countries, it becomes a practical necessity for him to first obtain registration in such foreign countries. It is a prerequisite to such foreign registration, under the statutes of almost all foreign countries, that the applicant shall first obtain a registration in his own country. In such cases federal registration, therefore, becomes vitally important. If it so happens that the nature of the mark is such that registration is prohibited by any of the provisions of section 5 of the Trade-Mark Act of February 20, 1905, the

applicant for registration generally seeks to have the provisions of this section stretched and distorted out of all recognition. The Office has, however, held in effect, in at least one instance, that the necessity of the applicant is no good and sufficient reason for judicial legislation by the Office. (Ex parte Buffalo Pitts Company, 89 O. G., 2069.)

One of the most valuable rights conferred by the Federal statute is that specified by section 27. The substance of this section is that a trader may deposit a copy of the certificate of registration with the Treasury Department, for the purpose of preventing the importation of all goods into this country bearing a similar mark. In practice, it is found exceedingly effective. There are also other minor advantages accruing from registration, one of which is the right to the registrant to bring suit in the Federal courts by conferring jurisdiction on such courts in certain cases. Another advantage is the public notice given to others of his claim to ownership. It is to be greatly regretted that in this country there is no certain and positive way that a person wishing to obtain a trade-mark can be certain that someone else has not a prior claim thereto. This is because no one is compelled to register his mark. It is a fact that many valuable marks are not registered in the Patent Office. It is also a fact, however, that the first place that a search is usually made for a mark is the files of this Office, where, perhaps, is gathered together the largest number of marks in use. Few persons outside the Trade-Mark Division realize how much these files are used for the purpose of enabling those who wish to adopt a mark to ascertain the prior claims of others.

The recent decision of the Supreme Court of the United States in the case of Thaddeus Davids Co. *vs.* Davids & Davids, 202 O. G., 952, 233 U. S., 461, indicates that it is advantageous to obtain registration for a certain class of marks. These are the so-called non-technical marks. In a suit for infringement they usually require clear proof that they do in fact identify the goods as originating with the plaintiff. They are registrable only under the ten year proviso of section 5. It would seem to follow from this decision that the certificate of registration is

as much evidence of the ownership of a non-technical as a technical mark. If so, then in such cases the burden of introducing evidence is shifted from the plintiff to the defendant, whenever registration is relied upon by the plaintiff. The importance of this can be readily perceived when the difficulty of introducing good and sufficient evidence to clearly establish that a mark of this kind does in fact indicate origin. In passing, it may be noted that this decision should settle to the satisfaction of most persons that the act of February 20, 1905, is constitutional, since it passes favorably upon the validity of what has been generally considered to be the most doubtful clause of the entire trade-mark statute.

April 29, 1915.

The Registration of Prints and Labels

A paper read April 29, 1915, before the Examining Corps of the United States Patent Office

BY

G. E. GARRETT,
Assistant Examiner of Trade-Marks and Designs
U. S. Patent Office.

WASHINGTON, D. C.
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THE LAW REPORTER PRINTING COMPANY, WASHINGTON, D. C.

The Registration of Prints and Labels

By

G. E. GARRETT,
Assistant Examiner of Trade-Marks and Designs,
U. S. Patent Office.

The registration of a print or a label is the registration of a claim of copyright. (Section 10 of the Copyright Act.) The provisions of the general copyright act, in so far as they are applicable, must be complied with before a valid registration can be obtained. The Copyright Act of June 18, 1874, provides *inter alia* that the copyrights of prints and labels shall be registered by the Commissioner of Patents. Section 3 of this act reads:

> "That in the construction of this act the words 'engraving, cut, and print' shall be applied only to pictorial illustrations or works connected with the fine arts, and no prints or labels designed to be used for any other articles of manufacture shall be entered under the copyright law, but may be registered in the Patent Office. And the Commissioner of Patents is hereby charged with the supervision and control of the entry or registry of such prints or labels, in conformity with the regulations provided by law as to copyright of prints, except that there shall be paid for recording the title of any print or label, not a trademark, six dollars, which shall cover the expense of furnishing a copy of the record, under the seal of the Commissioner of Patents, to the party entering the same."

The act of March 4, 1909, is silent upon the subject of prints and labels. Therefore, after July 1, 1909, the date on which this act went into effect, applications for the registration of prints and labels were refused by the

Patent Office on the ground that the act of 1874 had been repealed by the latter act. On December 22, 1909, the Attorney-General of the United States decided that the act of 1909 had not repealed the former act, in so far as it related to prints and labels, and that it was still the duty of the Commissioner of Patents to register copyrights of prints and labels. This ruling was affirmed by the Attorney-General on May 16, 1914.

A print or a label may be registered either by the author or proprietor who is a citizen of the United States, or by his executors, administrators, or assigns; or by an alien author or proprietor, or his executors or assigns, who shall be domiciled within the United States at the time of the first publication of the work. Registration will be granted to an alien author or proprietor when the State or nation of which he is a citizen or subject grants, either by treaty, convention, agreement or law, to a citizen of the United States the benefit of copyright on substantially the same basis as to its own citizens. (Section 8 of the Copyright Act.) It is therefore required that the citizenship of the author be stated when application is made by a proprietor (Rule 18).

The statutory requirements which cause the most difficulty and which are least understood are:

1. **Publication.**
2. **Notice of Copyright.**
3. **Descriptiveness.**
4. **Artistic Merit.**

These subjects will be discussed in the order mentioned.

PUBLICATION.

Prior to the going into effect of the act of 1909, application for registration had to be made before publication, and a prior publication was held to be such a donation to the public as to bar copyright protection. (Marsh et al. *vs.* Warren et al., 13 O. G., 7, 14 O. G., 678.) Section 9 of the act of 1909, however, provides in part:

> "That any person entitled thereto by this act may secure copyright for his work by publication

thereof with the notice of copyright required by this act; and such notice shall be affixed to each copy thereof published or offered for sale in the United States by authority of the copyright proprietor."

This section reverses the former practice and requires publication with notice of copyright before the filing of an application for registration.

The common misapprehension is that it is unlawful to place a copyright notice on a work before an application has been filed and registration secured.

The rules require that the date of publication with notice of copyright be stated in the application, and it is the practice to require that the day, month, and year be stated. The reason for this requirement is that the period of twenty-eight years protection begins to run from the date so set up and not from the date of registration. The question as to how long an applicant may delay after publication with notice of copyright before filing an application has not been judicially determined. The Register of Copyrights, however, has held that sixty days is the limit of time after publication in which to make application.

Any work which was in the public domain prior to July 1, 1909, may not now be protected by copyright. (See section 7 of the Copyright Act.) Many applications are refused registration on account of this provision, it being a common occurrence for proprietors of prints or labels to use them for several years before attempting to protect them by copyright.

A publication without notice of copyright, unless by accident or mistake, was a bar to copyright protection under the act of 1874. It would therefore appear that the publication of a label for any considerable time before placing a notice of copyright thereon would prevent the securing of a valid registration unless it could be shown that the omission was due to accident or mistake. (Pierce & Bushnell Co. *vs.* Werkmeister et al., 72 F. R., 54; and American Press Association *vs.* Daily Story Publishing Co., 120 F. R., 766.)

NOTICE OF COPYRIGHT.

The form of copyright notice used must conform exactly to the provisions of section 18 of the act, and it is obvious from the language of this section that Congress intended that only the forms so provided are to be considered valid. The courts have held that a notice which is lacking in any essential is no notice. (Hoertel *vs.* Raphael Tuck Co., 94 F. R., 844.)

It is the practice of the Patent Office to accept any one of the forms of notice provided by this section, probably for the reason that it has never been determined in which of the classes enumerated in section 5, prints and labels belong.

There are two improper forms of copyright notice which are frequently used. The first and most common is "REG. U. S. PAT. OFF." This is the form of notice of trade-mark registration, authorized by the Trade-Mark Act of 1905. The other form is "LABEL REGISTERED." Both of these forms are objected to as not complying with the statute, and their use is deemed sufficient ground for refusing registration. It appears that the publication of any copies without a notice of copyright is a donation to the public. Section 19 requires that the notice of copyright appear on each copy published.

DESCRIPTIVENESS.

Rule 30 of the Rules for the Registration of Prints and Labels, which is based on section 3 of the act, prohibits the registration of a label which is not descriptive of the article on which it is used. Its descriptiveness, however, may be either by words or by pictorial illustration. The word "REGINA" was held not to render a label descriptive of music boxes (*Ex parte* Regina Music Box Co., 100 O. G., 1112) while the representation of a keg such as is commonly used for beer was held sufficiently descriptive of malt liquors. (*Ex parte* Ruppert, 121 O. G., 2327.) In a recent case the words "IRISH EMBROIDERED STYLE" were held to be sufficiently descriptive of sheets, pillow cases, etc. The name of the proprietor of a label was held not to render the label

sufficiently descriptive. (*Ex parte* The American Wire Weavers' Protective Association, 94 O. G., 586.)

The term "article of manufacture" as used in the statute has been very broadly construed, and labels for spring water, poultry, eggs, and fruit in its natural state have been registered. In a recent case, however, the Commissioner ruled that a highway was not an article of manufacture. It would seem that the statute has been interpreted to mean articles of merchandise rather than strictly manufactured articles.

ARTISTIC MERIT.

Rules 29 and 30 define prints and labels as "artistic and intellectual productions." This question of artistic merit has been the cause of many appeals to the Commissioner of Patents, and in one instance was passed upon by the United States Supreme Court. In this latter case (Higgins et al. *vs.* Keufel et al., 55 O. G., 1139) the court held that a phrase descriptive of the goods (the words used were "WATERPROOF DRAWING INK") printed in ordinary type, did not constitute a label which could be protected under the copyright act. The use of a paraph under some of the words, or of printers' ornamentation, has been held not to render a label registrable. (*Ex parte* The Samuel Winslow Skate Mfg. Co., 131 O. G., 692, and *Ex parte* J. W. Howe & Son, 123 O. G., 1283.) The standard of artistic merit required is, however, very low, and any pictorial illustration or embellishment has been considered sufficient to warrant registration. In a recent case a label comprising printed matter and two circles, in each of which appeared the letter "G," was held to be registrable.

LABELS NOT REGISTRABLE.

The act incorporating the American National Red Cross makes it a misdemeanor for any unauthorized person or corporation to use the insignia of this society. Any labels, therefore, which contain such insignia are refused registration.

Prints or labels which bear portraits or names of living individuals are refused registration, unless the consent of

such person is shown. (*Ex parte* John Dewar & Sons, Ltd., 98 O. G., 1037.) The reason for this practice is that it is against public policy for the Government to grant protection for the use of an individual's name or portrait without his consent.

TITLE.

The title of the print or label must appear upon the copies filed and must be stated in the application. (Rules 18 and 19, and *ex parte* Ruppert, 121 O. G., 2327.) An applicant, however, is not limited in his selection of a title and may use any word or phrase which appears on the specimens filed. In one case at least, applicant was allowed to write the title on the back of the copies. (*Ex parte* Pingree Traung Co., 197 O. G., 997.)

Appeal to the Commissioner of Patents from the action of the Examiner of Trade-Marks and Designs, refusing to register a print or label, may be taken without an additional fee. (Rule 31) and his decision refusing registration appears to be final. (U. S. *ex rel.* E. L. Moodie *vs.* Butterworth, 30 O. G., 97; Allen *vs.* U. S. *ex rel.* The Regina Music Box Co., 105 O. G., 747; and United States, *ex rel.* Lincoln Highway Association *vs.* Ewing, 213 O. G., 749.

April 29, 1915.

WHAT IS PATENTABLE AS A DESIGN?

A paper read April 29, 1915, before the Examining Corps of the United States Patent Office

BY

H. I. HOUSTON,
First Assistant Examiner of Trade-Marks and Designs,
U. S. Patent Office.

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THE LAW REPORTER PRINTING COMPANY, WASHINGTON, D. C.

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The purpose of this paper is to point out the principal guide-posts which bound and define the field within which the applicant may, under the law, seek and secure the grant of a design patent. In so far as is practicable, the discussion will be limited to those phases of the question wherein the controlling principles differ materially from those relating to mechanical patents.

Briefly described, a design consists of the visual characteristics displayed by an object. Designs may be divided into two general types; one existent in the contour or outlines of an article, the other in a decoration applied to the surface thereof. The first type is illustrated in the shape of a teacup, the second in the pattern on a piece of wall paper as defined by the contrasting colors. A single object may embody one or both forms of design, and if both, they may be aggregated or combined.

The elemental factors by which the patentability or nonpatentability of a design is determined are disclosed in section 4929 of the Revised Statutes, which reads as follows:

> "Sec. 4929. Any person who has invented any new, original, and ornamental design for an article of manufacture, not known or used by others in this country before his invention thereof, and not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees

> required by law and other due proceedings had, the same as in cases of invention or discoveries covered by section forty-eight hundred and eighty-six, obtain a patent therefor."

Upon a comparison of the provisions of this section of the statute with those of section 4886, which specifies the principal prerequisites to the grant of a mechanical patent, perhaps the most striking difference to be noted is that of the subject-matter to which the invention may relate. Designs for articles of manufacture alone are entitled to protection. A design for a machine is therefore not proper subject-matter under the statute for the grant of a patent. (*Ex parte* Adams, 1898 C. D., 115; *Ex parte* Steck, 1902 C. D., 9.)

Patents are not granted for designs in the abstract, because of the limitation of the statute to designs for articles of manufacture. (*Ex parte* Gerard, 1888 C. D., 37; *Ex parte* Adams, 1898 C. D., 109.) Moreover, a definite article must be selected and illustrated by the applicant. (*Ex parte* Whyte, 1871 C. D., 304.)

By the recent decision of *Ex parte* Fulda (194 O. G., 549) this practice has been somewhat modified in the case of surface ornamentation, it being considered sufficient compliance with the statute to require the applicant to specify that the design is for an article of manufacture, without designating or illustrating a particular article.

It is the settled practice of the Office at the present time to require the applicant to confine his disclosure to a single form of the design, and not to permit the illustration or description of any modification or variation, it being left to the courts to determine the essential features or gist of the invention. (*Ex parte* Hill & Renner, 1898 C. D., 38, and cases referred to therein.)

The complete article embodying the design must be illustrated even though the novel feature or features may not embrace the whole article. (*Ex parte* Parker, 1897 C. D., 73.) An exception is made in certain cases of surface ornamentation falling within the ruling of *Ex parte* Fulda (*supra*).

The most significant word found in the statutes relating to designs is the word "ornamental." It defines

an attribute which must be existent in every design which is to successfully weather the storms of the Patent Office or of the courts. Besides, it is the chief guide-post separating the field of the design patent from that of the mechanical.

When used in relation to designs, the term "ornamental" designates that which finds favor in the eye of the observer by its appeal to the esthetic emotions. An article may be "ornamental" because of beauty in outline or in surface ornamentation, or because of the proper balancing or harmonious arrangement of its parts. Objects which are ludicrous, grotesque, or fantastic, if they embody artistic merit, fall within the term "ornamental" as here used.

The fact that an article is not crude or unsightly is not sufficient in itself to render it "ornamental" within the meaning of the statute. Neither does it present proper subject-matter for the grant of a design patent merely because there is something new about its shape whereby it can be distinguished from other articles. (Wright *vs.* Lorenz, 1902 C. D., 370.) It should positively appear that the object possesses certain characteristics which render it distinctly attractive to the eye of the observer. In some cases the presence of such ornamental features is best determined by the effect produced.

In the case of certain classes of articles, such as cut glass, jewlery, vases, and silverware, where the primary object sought is the production of an article which shall present a pleasing appearance, but little trouble is experienced. A different situation, however, is presented by those objects which in their appearance are preeminently suggestive of mechanical utility.

In the latter case it would seem to be a salutary precaution to scrutinize the design closely and to consider it the subject of a valid patent only when found to posses a feature or features distinctively ornamental. As suggestive of such practice, attention is directed to the case of *ex parte* Bettendorf (1907 C. D., 79) wherein the Commissioner refused to grant a patent for the side frame of a car truck, quoting with approval the following language from the decision of the Board of Examiners-in-Chief:

> "We are of opinion that its attractiveness to such men lies wholly in the apprehension of its

utility, in its superior adaptation of its shapes to utilitarian ends. They see that the design is compact lengthwise by reason of the location of the journal-boxes against the end of the frame. They see that it is lowered by making the inverted-arch tires farther down from the bearings than the upper tires are distant from those bearings. So made the side bar is not only lower but is stronger. They see that a minimum of weight is attained by skeletonizing the side bar by two openings near its ends and they see that in doing that the old upper truss and lower truss and the old guides are made with edge flanges which, as is well known, add strength to them. They also see here and there cross-webs, which, they well know, also add to the strength of the parts on which they are made and with which their ends are connected. All this makes the design attractive to them as practical men in the art.

"But we are of opinion that this utilitarian attractiveness is far from ornamentation. We find nothing beautiful or esthetic in the structure."

To the same effect are the rulings in the cases of *ex parte* Nickel and Crane (1904 C. D., 135); and ex parte Harthshorn (1903 C. D., 170).

A failure on the part of the Patent Office to follow the practice indicated is apt to lead to the grant of patents of the character considered in the case of Rose Mfg. Co. *vs.* E. A. Whitehouse Mfg. Co. (201 F. R., 926). The patents in controversy related to vehicle number plate supports, and in holding them invalid the court said in part:

> "The designs of the design patents in suit are for the most part alike. No. 41,389 differs, however, from No. 41,388 in having braces which unquestionably strengthen the arm, to which the number plate is attached. It is not only apparent that this is their function, but it is also established to be such by the evidence. Indeed, every feature of these patents is mechanical and functional, and not ornamental. Even ordinary rivet heads are made to appear as beautiful circles in this scheme of ornamentation. If, moreover,

the braces or supports of patent No. 41,389 were intended for ornamentation, they apparently failed in their mission, but, if otherwise, then every piece of mechanism can, with the aid of photography and the machinery of the Patent Office, be readily crystallized into a design patent."

Because of the diverse character of the subject-matter involved, but little information would be gained by an enumeration of the various articles which have been held to lack artistic merit sufficient to render them ornamental within the meaning of the statute. There is a class of cases, however, to which reference should be made. They relate to articles which are often referred to as intended for obscure use. In the case of Rowe *vs.* Blodgett (112 F. R., 61), wherein a design patent for a horse-shoe calk was held invalid because not ornamental, the court said:

> "Design patents refer to appearance, not utility. Their object is to encourage works of art and decoration which appeal to the eye, and the esthetic emotions, and the beautiful. A horseshoe calk is a mere bit of iron or steel, not intended for display, but for an obscure use."

Other articles which have been held not ornamental because intended for obscure use are, a washer for thill couplings (Bradley *vs.* Eccles, 126 F. R., 945); a ribbon spool for use in typewriters (Wagner Typewriter Co. et al. *vs.* F. S. Webster Co., 144 F. R., 405); an insulating plug for electric line supports (Williams *vs.* Syracuse & S. R. Co., 161 F. R., 571).

In order to sustain a patent grant, it is not sufficient that the design be ornamental. Its creation must result from the exercise of the inventive faculty. Not only is this necessary to bring it within the provisions of section 4929 of the Revised Statutes, but also to bring it within the constitutional provision whereby Congress may lawfully grant a limited monopoly to its creator as an inventor. In *ex parte* Knothe (1903 C. D., 42), the Commissioner said:

> "A new and ornamental design will be found in an article of manufacture when there can be

found in such article a new appearance created by inventive process and serving the purpose of embellishment. Such new appearance may be superficially applied or it may rest more or less deeply in the structure of the parts, but it must be a creation of inventive genius, accomplishing the purpose of ornament and not used for its functional value. It will be found, weighed and valued by the test of ornament."

In some of the decisions, statements are found to the effect that a lower order or degree of invention may support a design than is necessary in case of a mechanical patent. I am unable to find a sound basis for this assumption. An exercise of the creative imagination is just as essential to invention in the field of art as in the field of mechanics, and if this mental ingredient be not present in the resultant product no protection, under the statute, is accorded to its creator. There is apparently no warrant for assuming that those engaged in the production of beautiful and artistic effects are less gifted in mental acumen than those interested in the field of mechanics.

Considerable difficulty is often experienced in determining the presence or absence of invention in a mechanical device. To a greater extent is this true in the case of designs because of the character of the subject-matter involved, and also because but few principles have been worked out to aid in its determination.

A design made up of well-known ornamental features does not involve invention unless they combine to produce a new and distinct ornamental effect. Otherwise it is a mere aggregation and unpatentable as such. (Northrup *vs.* Adams, 1877 C. D., 322.)

The choice of a particular color or colors or the substitution of one color for another contributes in no way to the patentability of a design. (*Ex parte* Weinberg, 1871 C. D., 244; *Ex parte* Traitel, 1883 C. D., 92.)

As to size and material, the Court of Appeals of the District of Columbia in the case of Tyler *vs.* St. Amand (1901 C. D., 301) quoted with approval from the decision of the Acting Commissioner of Patents in part the following:

"The material of which the article is made and

its size are immaterial in design cases, since designs relate merely to form or appearance."

It has repeatedly been held that the adaptation to an article, of a design, old in another and even non-analogous art, does not involve invention. (*Ex parte* Knothe, *supra*; Untermeyer *vs.* Freund, 1893 C. D., 664.)

Moreover, the idea of forming or decorating an article to represent or simulate a well-known object is not considered as proper food for the nourishment of inventive genius and a sufficient basis for the grant of monopolies, but is reserved among the rights and privileges common to all artists and artisans. (Bennage *vs.* Phillippi, 1876 C. D., 135; Foster *vs.* Crossin et al., 1891 C. D., 304.)

Novelty is essential to render a design patentable. Absolute identity of appearance, however, is not required to negative novelty. It will be sufficient if the anticipating design present a substantial similarity to the one in controversy. (Gorham Mfg. Co. *vs.* White, 14 Wallace, 511; *in re* Freeman, 1904 C. D., 619; *in re* Schraubstadter, 1906 C. D., 541.) Moreover, this similarity in appearance is to be determined with reference to its effect on the eye of the ordinary observer and not on that of an expert. (Macbeth-Evans Glass Co. *vs.* Rosenbaum Co., 199 F. R., 154-164; Gorham Mfg. Co. *vs.* White, *supra*.)

The last essential requisite to patentability in designs, to which I shall make reference, is that of originality. This may be disposed of by the statement that the word "original" as used in section 4929 of the Revised Statutes has the same meaning and effect as when used in connection with mechanical inventions.

In concluding this paper, I desire to emphasize the importance of the word "ornamental" as used in the design statutes. It is the one characteristic by which the field of the design patent is definitely distinguished from that of other patents. Moreover, a design which does not involve ornamental subject-matter of a substantial and meritorious character is not entitled to favorable consideration in this Office or in the courts.

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Special Cases Arising in Interference Proceedings

A paper read May 6, 1915, before the Examining Corps of the United States Patent Office

BY

HENRY E. STAUFFER,
Examiner of Interferences,
U. S. Patent Office.

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THE LAW REPORTER PRINTING COMPANY, WASHINGTON, D. C.

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By

HENRY E. STAUFFER,
Examiner of Interferences,
U. S. Patent Office.

Introduction.

The general practice in interference cases, as the same arise in the Patent Office, is now fairly well established, and may be understood from the Rules of Practice and from the published decisions and text-books. But special cases and unusual questions frequently arise, and the decisions upon these, though not always reported, nevertheless form precedents for subsequent cases involving similar questions. A few of such special cases have been selected for discussion in this paper.

Order of Parties.

The principal examiner in preparing the notices for interferences is required to arrange the applications in the inverse chronological order of the filing of the particular applications involved (Rule 97; and Raulet and Nicholson *vs.* Adams, 114 O. G., 1827; 1905 C. D., 55). However, if any application is clearly a division or continuation of some earlier application he is required to so state in the notice to the Examiner of Interferences, in order that the latter may take cognizance thereof and fix the burden of proof with that fact in mind. But if the principal examiner is in doubt whether a particular application is in fact a division or continuation of another, he makes no mention of such earlier case, leaving the point to be raised by formal motion to shift the burden of proof on behalf of the party seeking advantage of

such application (Jackson *vs.* Patten, 150 O. G., 265; 1910 C. D., 2).

Cases Filed on Same Day.

It sometimes happens, however, that two applications claiming the same patentable invention are filed on the same day. While these cases are not numerous, several instances have occurred in the last few years. The fact that one application bears a higher serial number than another filed on the same day indicates nothing, for the numbering of applications filed in the Office on any given date is largely a matter of chance. Moreover, fractions of a day are not recognized by the Patent Office in the filing of papers. The numbers of such applications are therefore not a guide in fixing the burden of proof, since they constitute no proper reason for regarding either party as senior with respect to the other. The applications are in fact regarded as having been filed simultaneously. In order that the burden of proof may be based upon some act of the parties themselves, it is the practice to place the burden upon him who last executed his application, and such applications are therefore arranged in the inverse chronological order of the dates upon which the same were executed.

Priority Awarded to First to Conceive Where Reduction to Practice is Simultaneous.

A case such as the above may present a novel situation when the same comes on for determination upon proofs. The general rule is that priority is awarded to the party who first completes and demonstrates the practicability of his invention, or who first constructively reduces to practice by filing an application; except where another, who was the first to conceive was exercising diligence in perfecting his invention at the time his rival entered the field, and continued diligent until his own reduction to practice, either actual or constructive. But where no actual reduction to practice is proved by either party, and each is restricted for this act to his filing date, the reductions to practice, while constructive, are simultaneous, and it is necessary to determine by other means which of the two parties is entitled to the award of priority.

Only one instance in which this question has been seriously presented has been discovered. In that case, while both parties took testimony, neither actually reduced to practice, and the evidence was held to show prior conception by the senior party. It could not be said that he was the first to conceive and the first to reduce to practice, because the reductions to practice were simultaneous. It was held, however, that priority should be awarded to the party who proved an earlier conception. While in that case the judgment was in favor of the senior party, the theory upon which the judgment was rendered would appear to apply to either party, and if the junior party had proved the earlier conception, the judgment would probably have been in the latter's favor. In other words, it is the sense of that decision that, as between two parties standing on an equal basis as to their reduction to practice, the award should be in favor of him who first conceived the invention. No question of diligence seems to have been presented in that case, but it is believed that the same conclusion would have been reached irrespective of any question of diligence which might have been presented. In arriving at their decision the Examiner of Interferences and the examiners-in-chief appear to have been guided, to some extent at least, by the decision in the case of Smith *vs.* Foley *vs.* Anderson *vs.* Smith (136 O. G., 847; 1908 C. D., 210). In that case the applications of Foley and Anderson were filed on the same day. As between these parties there seems to have been no serious contest; but the decision of the Commissioner contains the statement that since neither had proved actual reduction to practice, Foley was entitled to prevail. This prior decision in the case of Smith *vs.* Foley *vs.* Anderson *vs.* Smith, *supra*, was not referred to by the Commissioner in his decision in the above mentioned case which has more recently been before the Office for determination, but he affirmed the decision of the Examiners-in-Chief as to all points. An appeal has been taken to the Court of Appeals of the District of Columbia, and the holding of the Commissioner upon this point has been urged as one of the grounds of appeal.

Identical Dates.

In the case last referred to the parties were claiming the same record date for constructive reduction to practice. Another interesting case involving a similar situation arose a few years ago with respect to record evidence. Section 4887 of the Revised Statutes particularly provides that an application for patent filed in this country by a person who has regularly filed an application for the same invention in a foreign country (if an adherent to the International Convention) shall have the same force and effect as the application would have had if it had been filed in this country on the date it was filed in the foreign country, provided the application was filed in the United States within twelve months from the earliest foreign filing date. In the case referred to the applications in the United States were filed on different dates, but each party had filed an application in Germany for the same invention as that embodied in his United States application, and it so happened that these applications were filed on the same date. Since the benefit accruing under the statute is based solely upon the filing of the application, no evidence of any earlier act by either party, such as conception or actual reduction to practice, could be accepted. No evidence was introduced as to any acts of invention in this country, and the case had to be decided on the rights of the parties as established by their foreign applications. Here then the parties not only were entitled to the same date for constructive reduction to practice, but they were likewise both restricted to this same date for conception of the invention. In other words, the parties were both entitled to the same date for conception and to the same and the identical date for constructive reduction to practice. The Examiner of Interferences took the position that the burden of proof was properly upon the party last to file his United States application, and his opponent, being the first to present in this country an allowable application, was in the eyes of the law entitled to a patent therefor, unless the later to file proved a superior right. Inasmuch as the only evidence presented by either party was that of the filing of his German application, it was held that, since the junior

party had established a right only equal to that of the senior party, he had failed to sustain the burden resting upon him, and priority was awarded to the senior party, the first to file in the United States. Appeal was taken to the Examiners-in-Chief. That tribunal was of the opinion that, notwithstanding the fact the German applications were filed on the same day, the records of the German Patent Office ought to disclose which of the two applications was in fact first presented. The Examiners-in-Chief recommended to the Commissioner that the case be remanded to the Examiner of Interferences with directions to call for evidence upon this point. The parties were required to secure the additional evidence, but when again presented the evidence failed to give any more definite data than that originally supplied. The case was therefore again decided in favor of the party who first filed his application in the United States. The decision became final without appeal.

Right to Make Claims.

Since the decision of the Court of Appeals of the District of Columbia in the case of Podelsak and Podelsak *vs.* Mclmerney (1906 C. D., 558; 26 App. D. C., 399) the question of the right of any party to make claims corresponding to the issue has been considered as a question ancillary to that of priority of invention proper. Many such cases have been presented, and when it is found that one of the parties can not make such claims, priority is awarded to his opponent. Cases have arisen, however, in which it has been found that the claims as presented will not read upon the application of any party to the proceeding. While such cases are unusual, two instances have occurred to the writer's knowledge. With such a situation no award of priority can be made to either party, and it might at first appear that such an interference should be dissolved. When the first case arose such a recommendation was made to the Commissioner. After hearing the parties he declined, however, to dissolve the proceeding, and remanded the same to the Examiner of Interferences with directions to enter a judgment to the effect that neither of the parties was entitled to make the claims, and therefore neither was the inventor of the subject-matter

in issue. This action was taken on the theory that the appellate tribunals might come to a different conclusion as to one of the applicants, and if it should be eventually held that either could make the claims, a true case of priority would be at once presented.

In the second case, which was but recently presented, a similar judgment was entered.

Patent Invalid. Dissolution.

This unusual case was once presented. An interference was declared between an application of one party and a patent to another based upon an application filed subsequent to the filing date of the first party. The patentee being the last to file was made the junior party and was required to prove his case over that of the applicant. Inasmuch as one party was a patentee the only question to be determined ultimately was the right of the other party to a patent. The patentee claimed the benefit under the International Convention of the filing date of a certain German patent. It at once appeared that the application upon which the German patent was based was filed in Germany more than one year before the patentee's application was filed in this country, and, further, that the German patent issued before the United States patent was granted. It was thus apparent that the United States patent was invalid. Moreover, while the German patent invalidated the United States patent based upon the same disclosure, the same was not a reference for the other party, because it was not sufficiently early to operate as a bar. In view of the fact that the patent was invalid, and since the patentee could not under his preliminary statement present any evidence other than his German application, there seemed to be no reason for the continuance of the interference. The proceeding was dissolved by order of the Commissioner, based upon the recommendation of the Examiner of Interferences.

Suspension.

It occasionally happens that infringement suits and interference proceedings between the same parties are running at the same time, as where one of the parties has obtained a patent and sues the other for infringement. Under Section 4920 of the Revised Statutes the defendant may

prove that the patentee was not the first inventor, and in doing so may prove that he himself was the real and true inventor. To some extent, therefore, the questions presented in the suit may be the same as those to be determined in the interference. The Office is sometimes asked to suspend the interference pending final determination of the suit. No suspension will however ordinarily be made. As was pointed out in the case of McBride *vs.* Kemp (109 O. G., 1069; 1904 C. D., 89), the statute particularly directs the tribunals of the Patent Office alone to determine the question of priority of invention between two or more parties each asking a patent for the same invention. Section 4904 of the Revised Statutes specifies when an interference should be declared, and directs that the Commissioner shall, when the proper circumstances arise, institute the proceeding. It requires that he shall direct the primary examiner (Examiner of Interferences) to determine the question of priority in the first instance, and provides for appeal to the Examiners-in-Chief and Commissioner. An appeal to the Court of Appeals of the District of Columbia is provided by a later statute.

In view of the fact, therefore, that the statute particularly designates the method of determining interferences and provides no other, it would be useless to suspend the same, pending determination of a suit for infringement, in which the question at issue in the interference could be raised only incidentally or collaterally. Thus, while the Office is in no way bound by any court decision in an infringement suit even though substantially the same question may be presented, the principle of comity is always respected, and due deference given to decisions of such character. It not infrequently happens therefore that the tribunals of the Patent Office and the federal courts arrive at very different conclusions upon the same state of facts. A recent case is in point. A party Wright secured a patent. Some time after the issuance thereof another party, one Brownlee, filed an application for the same invention, and an interference was declared. The invention was a gas iron for laundry purposes. Before the interference was declared Wright sued Brownlee in the District Court for the Eastern District of Pennsylvania, for in-

fringement of his patent. The court held that the invention originated with the defendant Brownlee, and dismissed the suit (Wright *vs.* Brownlee et al., 205 F. R., 526). When the interference came on for final hearing, the Examiner of Interferences, while not regarding the case as free from doubt, likewise came to the conclusion that the invention was that of Brownlee, and decided with the trial court in the infringement case. Upon appeal to the Examiners-in-Chief this decision was reversed, and that tribunal held that Brownlee had failed to sustain the burden which was upon him to prove his case beyond a reasonable doubt, and reversed the decision of the Examiner of Interferences. In the meantime appeal was taken from the decision of the trial court in the infringement case, and the Circuit Court of Appeals for the Third Circuit, in a decision dated April 2, 1914, reversed the trial court, adopting almost in *toto* the language of the decision of the Examiners-in-Chief (Wright *vs.* Brownlee et al., 212 F. R., p. 157). The decision of the Examiners-in-Chief was affirmed by the Commissioner on appeal. No further appeal was taken.

Dissolution in Cases Well Advanced.

After an interference is well advanced, and particularly after proofs have been taken, the same will not ordinarily be terminated without a judgment. But in special cases a dissolution may be ordered without an award of priority, as where it very clearly appears that a statutory bar exists to the grant of a patent to one or more of the contesting parties (Neill *vs.* Commissioner of Patents, 82 O. G., 749; 11 App. D. C., 584; Oliver *vs.* Felbel, 100 O. G., 2384; 20 App. D. C., 255).

Dwiggins vs. Reid, Reid and Kelly.

The case of Dwiggins *vs.* Reid, Reid and Kelly, recently before the Office, developed an unusual and interesting situation. Both parties were applicants. The issue consisted of a large number of counts. Testimony was taken by both parties, and the case submitted for final disposition upon the record thus made. The Examiner of Interferences divided the issue, awarding certain of the counts to Dwiggins and the others to Reid, Reid and Kelly. The evidence showed, however, that Dwiggins had built, had publicly

used, and had sold a machine embodying certain counts of the issue many years before he filed his application. The machine was first sold in 1903 and used for nearly a year in the manufacture of fencing. It was then changed in some respects, and the use continued for a considerable period of time. In 1905 it was sold a second time, and the second purchaser continued to use it, with perhaps minor changes, until 1909. The Examiner of Interferences noticed the fact that the Dwiggins application was probably invalid for all counts which would read upon this early machine. He, however, awarded priority of invention as the evidence seemed to require, but followed the same with a recommendation to the Commissioner under Rule 126, directing his attention to the apparent statutory bar.

The Commissioner, however, thought that the oath made to the Dwiggins application partook of fraud, and concluded that under the circumstances Dwiggins was not entitled to an award of priority. He accordingly vacated the judgment of the Examiner of Interferences and directed that if appeal should be taken by Dwiggins as to the counts which had been awarded to Reid, Reid and Kelly, the Examiners-in-Chief should dismiss the appeal. The appeal was taken, and was dismissed by the Examiners-in-Chief as directed. Dwiggins then filed in the Supreme Court of the District of Columbia a petition for mandamus, asking that the Commissioner be directed to set aside the orders referred to. The petition was denied. Appeal was taken to the Court of Appeals of the District of Columbia, and the action of the lower court sustained (United States *ex rel.* Dwiggins *vs.* Ewing, Commissioner of Patents, 214 O. G., 1025).

Another case was recently presented in which the interference was likewise between two applications. When the evidence was considered, it clearly appeared that machines embodying the issue had been used by the junior party for nearly seven years prior to the filing of his application, and for four years prior to the filing of the senior party's application. It was apparent from the evidence that the junior party was the prior inventor, but inasmuch as the use of this party's early machines was apparently a bar to both parties, it

was concluded that the interference should be dissolved without an award to either party. Since the machine had been in public use for many years it was held that the junior party was not entitled to even a technical award of priority. It was therefore recommended that the interference be dissolved without a judgment, and an order to this effect was issued by the Commissioner.

Successive Interferences.

A second interference will not usually be declared between the same applications, or between new applications by the same parties relating to the same general invention. But a second interference is sometimes rendered necessary in order that the successful party in the first proceeding may secure the full benefit of the judgment in his favor, as where the losing party in the first case is permitted to go to patent with claims which should have been rejected upon the issue.

In an interference between K and W priority was awarded to the latter. K canceled the claims corresponding to the issue, and was permitted to go to patent with other claims which should have been rejected upon the issue. W went to patent without making claims corresponding to those remaining in K's application, but which clearly read upon his own disclosure and fell within his statement of invention. W filed a reissue application embodying the claims of K's patent and demanded a second interference. The interference was declared. On motion for judgment by W on the ground that the rights of the parties were determined by the judgment in the first case, it was held that the decision in the earlier case was determinative not only of the actual matter there adjudicated, but of all other matter there in issue and which might have been adjudicated therein, and priority was awarded to W in the second interference on the ground of *res adjudicata*.

In another case an interference had been declared between A and H. Upon the evidence presented priority was awarded to A. H canceled claims corresponding to the issue, but was permitted to go to patent with other claims only slightly different from those constituting the issue, and the most of which clearly read upon A's disclosure. After the patent issued

A copied these claims and demanded a second interference. The Examiner refused to declare the same, but the Commissioner directed that the interference be instituted. Without waiting for the filing of preliminary statements A moved for judgment on the ground of *res adjudicata*. The motion was granted and judgment rendered in his favor as to the issue of the second interference on the ground that the subject-matter thereof was, in effect, in issue in the earlier case, and the question of the rights of the parties with respect to these claims was determined by the decision in the earlier proceeding.

Evidence (Three or More Parties.)

In interferences involving three or more parties some unusual questions with respect to the introduction of evidence arise. If all junior parties allege dates of conception prior to the senior party's filing date, the case is perfectly simple. Times for the taking of testimony are set for all parties in order. But where certain of the junior parties fail to overcome the filing dates of some or all of those who are senior, an unusual situation may be created.

Take, for instance, the three-party case. We may have, first, a case in which the junior party fails to overcome the filing date of either of the other parties; or, second, where he fails to overcome the senior party only; or, third, a case in which the intermediate party fails to overcome the senior party. Any party failing to overcome any senior party is placed under an order to show cause on or before a time specified why judgment should not be entered against him upon the record.

In the first case, if the junior party moves to dissolve, he should proceed against both senior parties, for if he eliminates one only, the other will still stand as a bar to his right to a patent. If it is held on motion to dissolve that both parties can make the claim, the junior party may then have the case set for final hearing under the provisions of Rule 130, in order that he may argue this same question as a basis for an award to himself. But under such circumstances the case will not be at once set for hearing, because the intermediate party, having alleged conception prior to the senior party's filing date, is entitled to take proofs upon this question.

Times for the taking of testimony between these parties only will therefore be set, but the junior party will be permitted to remain in the case until the same comes on for final hearing, so that all the questions may be argued and determined at one hearing. When the case comes on for final hearing, if it be found that neither of the other parties can make the claim, the award of priority will be to the junior party. If, however, it be found that either can make the claim, the junior party can not prevail.

In the second case, where the junior party overcomes the intermediate party, but fails to overcome the senior party, a different situation is presented. Here the motion to dissolve need attack the right of the senior party only to make the claim. If he succeeds in eliminating such party he will be entitled, as a matter of course, to take testimony with respect to the intermediate party. If, however, the interference is not dissolved and the senior party remains in the case, the standing of the junior party is somewhat anomalous. He is under an order to show cause why judgment should not be entered against him, with the senior party standing as an apparent bar. But if he should succeed at final hearing in showing that the senior party can not in fact make the claims, he is entitled then to contest the question of priority with the intermediate party. This situation not infrequently occurs. If the junior party asks to have the question of the senior party's right to make the claim argued at final hearing, he will be permitted to remain in the case; and since he may establish his contention that the senior party can not make the claims, he will be permitted to take testimony to establish his rights with respect to the intermediate party. Thus all possible questions will be disposed of at the same time. The practice therefore is to set times for the taking of testimony as between all three parties, so that all the evidence can be presented at one hearing.

In the third case, if the intermediate party moves to dissolve on the ground that the senior party can not make the claims, and such motion is denied, he likewise may argue this same question at final hearing as a basis for an award to himself. If he requests

to be heard upon this question, times will be set for all three parties to take testimony; for should he succeed in showing that the senior party can not make the claims, he will be in position to contest priority with the junior party.

Inoperativeness.

It sometimes happens that the operativeness of a party's disclosure is attacked by one of the other parties to the proceeding. This question should first be raised, if possible, by motion to dissolve. If the law examiner holds the structure to be operative, the other party not infrequently desires to take testimony to establish his contention. Numerous cases have arisen in which such testimony has been introduced. The experience of the Office is, however, that unless the invention is involved or abstruse, such evidence is of comparatively little value. In ordinary mechanical cases, the operation of which can at once be understood, evidence upon the question of operativeness is seldom of any substantial use.

Where the junior party has alleged conception prior to the senior party's filing date, and is therefore entitled to take testimony on the question of priority proper as a matter of course, he may, while introducing his testimony on the main question, take testimony also on the question of operativeness. No special permission to take such testimony need be secured. If evidence is introduced which is of such a character as to be useless in the final disposition of the case, the same will be simply disregarded, or struck out on motion. But in those cases in which the junior party has failed to overcome the senior party's filing date, and desires to take testimony on the question of operativeness of his opponent's structure, he must secure special permission to do so (Lowry and Cowley *vs.* Spoon, 1906 C. D., 224; Browne *vs.* Stroud, 1906 C. D., 226). A motion for permission to take such testimony is necessary, and the same must be accompanied by a satisfactory showing under oath, setting forth generally the facts which it is proposed to prove, and the witnesses who will be called to establish these facts. This is necessary in order that the Office may know that the same will be fact testimony and useful, and not merely the opinion of experts upon questions which the tribunals must de-

cide for themselves. Where, therefore, a party desires to take testimony upon such questions, the affidavits in support of the motion should make it clear, generally at least, what the moving party proposes to establish.

Evidence in Foreign Countries.

Generally speaking, acts done in a foreign country are not available as evidence in support of a claim of priority in this country. But when the question is that of originality, it may be necessary to secure the testimony of parties living abroad. And where parties seek the benefit of foreign filing dates under the provisions of Section 4887 of the Revised Statutes, it sometimes becomes necessary to establish the facts by testimony. If the witnesses can not be brought to this country, or where the expense and trouble of doing so would involve hardship greatly in excess of that sustained by an opponent in taking the testimony abroad, the testimony may be taken in the countries where the witnesses live.

Under the authority of Section 4905 of the Revised Statutes, authorizing the Commissioner of Patents to make rules for the taking of testimony generally, a special rule has been promulgated for taking testimony abroad (Rule 158). The practice adopted is the same as that used generally by the courts to secure testimony in a foreign country. Two methods are in use; first, by a commission directed to some consular or diplomatic officer of the United States residing in the country where the witnesses are located; and, second, by letters rogatory addressed to a court of competent jurisdiction in the country where the witnesses live.

The number of cases in which testimony had to be taken abroad was formerly quite large. But since the decision of the Commissioner in the case of Steel and Steel *vs.* Myers, 205 O. G., 1021, which permits a party to take advantage of any foreign application by motion to shift the burden of proof under circumstances recited in the decision, the cases wherein it has been necessary to take testimony in foreign countries have been much lessened.

In any case permission to take the testimony must first be secured by motion duly made and noticed upon

the other party. When it is shown that the testimony is necessary and probably will be useful, permission to take the same will be granted, and the taking of testimony in this country suspended, unless the parties otherwise agree. The commission is transmitted by the Commissioner of Patents through the Department of State to the officer to whom it is directed. After the testimony is taken it is returned to the State Department, and by that Department transmitted to the Patent Office.

When it becomes necessary to take the testimony of witnesses in Germany, a commission is not admissible unless the witnesses will testify voluntarily. The courts will not compel their attendance. Therefore, while commissions are sometimes issued to consuls or other United States representatives in Germany, this is only done where it is known in advance that the witnesses are friendly and will probably testify of their own free will. Because of this uncertainty, letters rogatory are quite commonly used instead. These are directed to the court having jurisdiction over the witnesses, requesting that steps be taken to secure the necessary evidence. These letters are transmitted through the State Department to the American Ambassador, who forwards them to the German Foreign Office with a request for their execution. At that point they pass to the control of the German officials, are transmitted to the proper court, and, when executed, are returned through the same channels.

The Department of State requires in all cases a deposit of at least $100 before the commission or letters rogatory are transmitted. After the evidence is returned, any surplus remaining is, of course, returned to the depositor.

Conclusion.

Illustrations might be greatly multiplied, but those given will serve to indicate to some extent the variety and character of questions, merely incidental or collateral to priority proper, which are presented for consideration and determination. Many of the questions raised in an interference are identical with those which may be raised in an infringement suit, but there are others arising more or less frequently which never occur in a suit in the federal courts.

Interferences as the same arise in the Patent Office have been given much consideration, and there is perhaps no branch of the patent law concerning which there is greater difference of opinion. Some persons advocate the entire abolition of interferences in the Office, arguing that the whole matter should be left to the courts, while others prefer to have the statute remain as it now is. Between these extremes many proposed modifications of the existing law have been suggested. The subject is an inherently complex one. The very fact that there has been so much discussion by men well informed and competent to criticize, but that the law nevertheless remains as it was in 1870, is in itself sufficient evidence of the difficulties in the way of any radical change.

Fundamentally, the system is a just one, for it aims to secure the rights of the party who is in fact and in law entitled to such protection. The Constitution itself, in giving to Congress authority to legislate upon the subject, delegated broad powers; but nevertheless introduced certain limitations which must be taken into consideration. In the first place Congress is authorized to secure to inventors only the exclusive control of their creations, and even this control must be for a limited time. In other words, it was apparently the intention of the makers of the Constitution that the reward should be to the party who in truth and in fact produced the invention; therefore before any patent can be granted to any one of two or more parties claiming the same invention, it is necessary to determine who was in fact the first inventor.

This fact appears to have been early recognized; for while the original law of 1790 made no reference to conflicting applications, the law of 1793, which supplemented that of 1790, contained a very carefully worded section relating thereto. The applications are here called "interfering" applications, and this is apparently the first time in which the expression occurs. The method of determination specified by the statute was that of arbitration. Even at that early date it was recognized that there might be more than two so-called interfering applications, and the statute particularly set forth how the arbitrators should

be selected, both where there were two conflicting applications and where there were more than two. The section of the statute to which reference has been made, reads as follows:

> Section 9. And be it further enacted, That in case of interfering applications, the same shall be submitted to the arbitration of three persons, one of whom shall be chosen by each of the applicants, and the third person shall be appointed by the Secretary of State; and the decision or award of such arbitrators, delivered to the Secretary of State in writing, and subscribed by them, or any two of them, shall be final, as far as respects the granting of the patent. And if either of the applicants shall refuse or fail to choose an arbitrator, the patent shall issue to the opposite party. And where there shall be more than two interfering applications, and the parties applying shall not all unite in appointing three arbitrators, it shall be in the power of the Secretary of State to appoint three arbitrators for the purpose.

This was the law until 1836, when general changes in the patent system were made. The law of 1836, in so far as it related to interferences, remained in force until 1870, and Section 42 of the law of 1870 is in substance identical with Section 4904 of the Revised Statutes, now in force. A short history of the laws relating to interferences may be found in the decision of Commissioner Duell in the case of Little *vs.* Lillie *et al.*, 1876 C. D., 207.

May 6, 1915.

Combination Claims Employing Terms "Means," "Mechanism," etc., Followed by a Statement of Function with Relation to the Statute.

A paper read September 21, 1916, before the Examining Corps of the United States Patent Office

BY

JOHN J. DARBY,
Principal Examiner, Division Twenty-four,
U. S. Patent Office

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LAW REPORTER PRINTING COMPANY, 518 FIFTH STREET NORTHWEST, WASHINGTON, D. C.

Combination Claims Employing Terms "Means," "Mechanism," etc., Followed by a Statement of Function with Relation to the Statute.

By

JOHN J. DARBY,

Principal Examiner, Division XXIV,
U. S. Patent Office.

It is not surprising that different views exist and that the practice of the Office has, to say the least, been vacillating with respect to the proper method of dealing with claims for combinations of mechanical elements which define the real invention by such broad and generic terms as "means" and "mechanism" followed by a statement of function. This lack of uniformity in the Office is apparently due to the same lack of uniformity in the courts in dealing with and discussing this type of claims.

It has been contended that this character of claims should not be allowed for the reason that they are vague, ambiguous, and indefinite. Further than this, it has been urged that they do not cover any particular or definite construction, but, when fairly construed, are merely claims for a function. Again, it is held that such claims are broader than the invention, and that they seek to cover any and all means that may hereafter be devised for effecting the stated result or function. This, it is contended, would close the field of invention, in the particular art, to future inventors, and tend to obstruct the progress of the useful arts, rather than to aid the progress thereof. On the other hand, it is held that this type of claims should be allowed, in the absence of any reference which does not respond to the combina-

tion both as to structure and function. This view is held by those who consider that the courts will give to an inventor, no matter what the breadth of terms used in the claim, only what he has invented and produced, and substantially its equivalents, and if the invention is of a primary or pioneer character, greater liberality will be exercised in the inclusion of equivalents.

The first view, above mentioned, as to this character of claims will now be briefly considered in the light of the statute and various court decisions.

Section 4888, R. S., requires that before any inventor or discoverer shall receive a patent for his invention he shall make application therefor, in writing to the Commissioner of Patents, and—

> "he shall particularly point out and distinctly claim the . . . combination which he claims as his invention or discovery."

Do the class of claims now under consideration meet the requirements of the statute above mentioned, or are they vague and indefinite; and fail to cover any definite construction, but seek to cover any and all means for effecting the stated result or function—or do they merely cover a function?

It is thought that the decision of the United States Supreme Court, in the case of Morley Sewing Machine Co. et al. *vs.* Lancaster (C. D., 1889, page 380) will throw considerable light on this subject. The first and thirteenth claims are the only ones that need be quoted since they are a fair type of the four claims relied upon by the plaintiffs:

> "(1) 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 set forth.
>
> "(13) The combination, with button sewing appliances, of a trough, appliances for carrying the buttons successively from the trough to the sewing devices, and mechanisms for operating said appliances and sewing devices as set forth."

In each of the above-quoted claims, it will be found that not a single element, or group of elements, that enter into the combinations, has been structurally defined. On the contrary, each element, or group of elements, is qualified solely by the function performed.

The court, in discussing this case, stated that—

> "Morley, having been the first person who succeeded in producing an automatic machine for sewing buttons of the kind in question upon fabrics, is entitled to a liberal construction of the claims of his patent. He was not a mere improver upon a prior machine which was capable of accomplishing the same result; in which case, his claims would properly receive a narrower interpretation. This principle is well settled in the patent law, both in this country and in England. Where an invention is one of a primary character, and the mechanical functions performed by the machine are, as a whole entirely new, all subsequent machines which employ substantially the same means to accomplish the same result are infringements, although the subsequent machine may contain improvements in the separate mechanisms which go to make up the machine."

It will be noted that in this decision there was not a dissenting opinion by any member of the court. There was not the faintest hint by the honorable court that the claims sued on were not in proper form. Here was one of the clearest examples of combination claims, wherein the elements or groups of elements, entering into the combinations, were each *solely* qualified by the function or result performed. Not a single structural limitation can be found in the above-quoted claims. If these claims were broader than the invention; vague, ambiguous or indefinite; for a function only; or for any and all means radically differing in structure and operation that in the future might be invented for effecting the stated results, will any one seriously contend that the Supreme Court would, for a moment, hesitate to criticise and put their stamp of disapproval on such a type of claim. The

fact that these claims were approved, in their broadest aspect, consistent with the disclosure in the specification, goes to show that, in form, they responded to the requirements of the statute and met with the approval of the court.

One of the first decisions of the Commissioner of Patents bearing on claims of the character now under consideration was the decision of Commissioner Butterworth in *ex parte* Demming, C. D., 1884, page 18. The first and third claims were before the commissioner for consideration. The first claim is all that need be quoted:

> "The combination substantially as set forth, of a lock, a bolt, tumbler or tumblers, a dog or dogs for locking one or more of the tumblers in an abnormal position when it has moved past the proper point to permit the movement of the bolt, and means for acting directly on the dog or dogs with the key to restore the lock to its normal position."

In discussing this claim the commissioner said that the only words that distinguished the claim from the prior art were the words—

> "and means for acting directly on the dog or dogs with the key to restore the lock to its normal position."

and if this claim was construed literally it would embrace all constructions or arrangements whereby a certain desired result could be attained. It was further stated that such a claim would cover

> "not only variations, equivalents and modifications of the invention described, but also means substantially different therefrom if such should in the future be invented."

This literal construction placed on the claim by the commissioner does not agree or conform with the interpretation or construction of claims by the courts for the past quarter of a century.

While this decision was intended to make the practice

of the Office uniform, the actual result was, that by reason of a misunderstanding or misapplication of the doctrine laid down therein, the practice became greatly confused. Some examiners construed this decision as prohibiting the use of the words "means, mechanism," etc., in any claim. This decision was followed by several others, involving the same question. *Ex parte* Holt, C. D., 1884, p. 43; *ex parte* Wilkins, C. D., 1884, p. 71, and *ex parte* Paige, C. D., 1887, p. 71. Commissioner Hall, in the Paige decision, above cited, made it very clear that the words "means" and "mechanism" may be properly employed where they refer to mere adjunctive devices readily understood. In instances, however, where such words were used to designate in the claims that portion of the subject-matter in which the actual invention resided, then such claims were too vague and indefinite.

The decision of the Supreme Court in Morley *vs.* Lancaster, above noted, was rendered two years after the Paige decision.

Commissioner Mitchell, shortly after the Morley decision, in *ex parte* Pacholder (C. D., 1890, p. 55) in considering the same question as was involved in the Paige decision, saw the importance and pertinency of the Morley decision to the question then under consideration and stated as follows:

"If the abundant use of the words 'means, mechanism, and appliances' (in Morley's 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. But the court nowhere intimates that such is the case, and proceeds in a learned opinion to show that the Lancaster machine although differing essentially in matters of construction from the Morley machine, nevertheless employed equivalent mechanisms and appliances for accomplishing the same results, and therefore was an infringement. It is impossible to avoid the conclusion that if Morley

had been held to the doctrine that the words 'means, mechanism, and appliances' 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.

"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 this Office, to protect inventors and guard their inventions. . . . 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. . . . Of course, in all such cases while the Office will insist upon as much definiteness in the language of the claim as the statute calls for, it will also, if it properly discharge its function as the protector of the inventor leave something to the salutary and benignant agency of construction in the courts.

"As I have already indicated, the success of the inventor Morley in holding the Lancaster machine as an infringement was due to the fact that the Patent Office while respecting the statute, did not pervert it to the ignoble use of making it deprive the inventor of the very rights which it was designed to protect and foster."

Following this decision, was the decision of ex parte Knudsen (C. D., 1895, page 29). In discussing, in this decision, the class of claims, which mention "means" and "mechanism" qualified by the function attained to the exclusion of specific structural definition, the commissioner stated that this is a class of claims—

> "which cause the most trouble, as frequently it is a matter of great difficulty to decide whether

such claims are subject to objection or to rejection or to both. The difficulty, too, is often increased by the fact that a broader construction ought to be given the claim, if it covers a new departure in the art.

"The use of the above noted phraseology does not of necessity render a claim objectionable, for when the idea is clearly stated and the combination or relation of parts to produce a desired end is plainly expressed the breadth of the statement of the claim is no reason for objecting to it. It is only necessary that these expressions shall clearly distinguish what is new from what is old in the art, or from fair equivalents thereof. If they do this, the question is then, one of patentable novelty—that is to say, claims of this order are not objectionable in form, on the ground that they are too broad, but only because they are vague or indefinite. When indefinite, they 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."

It is now generally conceded that the courts, in construing a claim when an element of a combination is referred to by the term "means" or "mechanism," followed by a statement of function, treat it as though it was not the intention of the patentee to cover any and all means for attaining the stated function, but only the practical means described in the specification, or the fair equivalents of such means. In discussing the question in the case of Washer Co. *vs.* Cramer (169 Fed., 629; 95 C. C. A., 157, 3d Circuit), Judge Gray said that the language of the claim should not be considered dissociated from the specification, and that—

> "no invention can be practically or fairly understood or explained if such dissociation is absolutely adhered to. As we have already shown the element described in the first claim, as 'means for actuating said lever' must not be taken to be any means such as impracticable hand-power

applied to the lever, but the efficient practical means described in the specification. Reading the claim and the specification together, the invention of the patentee was clearly such an application of mechanical power as would oscillate the tub with all the advantages afforded by the resiliency and retardation of the springs of the standard washer preserved."

In the Century Electric Co. *vs.* Westinghouse Elec. & Mfg. Co. (191 Fed., 350, 354; C. C. A., 8, 12), Judge Sanborn, in applying the rule that the court should seek to ascertain from the terms of the patent, in the light of the circumstances, what was the intention of the contract between the government and the patentee said:

"The intention should be deduced from the entire contract, and not from any part of it. The specification, which forms a part of the same application as the claims, must be read and interpreted with them, not for the purpose of limiting or contracting, or of expanding the latter, but, for the purpose of ascertaining from the entire agreement, of which each is a part, the actual intention of the parties, and that intention when ascertained, should prevail over the dry words and inapt expressions of the contract evidenced by the patent, its specification and claims."

The doctrine laid down in the above decision of Washer Co. et al. *vs.* Cramer et al., and many other court decisions too numerous to mention, to the effect that no patented invention can be practically or fairly understood or explained if the language of the claim is entirely dissociated from the specification, and that the claims and specification should be read together, is a fair and equitable one. Further than this, Judge Shipman, C. C. A., 2d Cir. (57 Fed., 629), in the Smead Warming & Ventilating Co. *vs.* Fuller & Warren Co. et al., applied this doctrine when he said:

"The construction to be given his patent must correspond with the extent of his invention. The actual invention, if in conformity with the

language of the claims should control in the construction of patents. A strict construction should not be resorted to, if it becomes a limitation upon the actual invention, unless such construction is required by the claim." (Merrill *vs.* Yeomans, 94 U. S., 568; Railroad Co. *vs.* Mellon, 104 U. S., 117).

It is perfectly clear, therefore, from the above decisions, and many others well known to us, that the courts, in interpreting claims consider it their duty to read the claims in the light of the specification, in order to get a full and clear understanding of what the patentee has actually invented, and the principle and operation of the invention. In many instances, when a patentee through inadvertence or ignorance, has unnecessarily placed structural limitations on his claims, the courts have resorted to the specification in order to enable them to see if the invention was a primary one. If so, they would place a liberal construction on the range of equivalents, and thereby give the patentee an interpretation of his claim, commensurate with the invention disclosed by him.

We are all aware, of course, that it is well established and settled practice of the courts that claims for a "primary" or "pioneer" invention should be given considerable liberality of construction. It is not always a very easy matter, however, to determine what are pioneer inventions, in cases of patents such as the Morse electrical telegraph, the Howe sewing machine or the Bell telephone, no trouble would be experienced in determining their character. Many instances frequently arise, however, which require considerable thought and consideration in order to determine whether or not they should properly be classed as pioneer inventions. Take, for instance, the definition of a "pioneer" invention, as given by Mr. Justice Brown in U. S. Supreme Court decision in case of Boyden et al. *vs.* Westinghouse et al. (C. D., 1898, page 443). In speaking of the word "pioneer" as applied to inventions the court said:

> "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."

Under the above definition, any new combination of elements, or groups of elements (whether such elements are old or new) which effect a new and useful result or function, never before performed, constitutes an invention properly coming within the range of pioneer inventions. An invention, in order to come within the class of "pioneer" inventions, certainly under the Supreme Court definition of the term above given, does not have to be extremely radical or revolutionary in its character, but if it produces a novel and desirable result or function it falls within this class of inventions.

In support of the allowance by the Office of the class of claims under consideration, attention may be called to the following decisions and brief quotations therefrom:

In the Monash Younker Co. *vs.* National Steam Specialty Co., 208 Fed., 559 C. C. A., 7th Circuit, it was held that "means" qualified by the function performed did not preempt the entire field of invention but that the patentee was entitled only to the means disclosed, or their fair equivalents.

In Arnold *vs.* Tyden, 193 F., 410, the same Circuit Court of Appeals held that: "In the Paper Bag Case, 210 U. S., 405, Sup. Court, 748, the Supreme Court held "that claims for means are valid when the specification clearly discloses the particular means or mechanism having the function indicated in the claims." Under this rule held that the claims of the Tyden patent, No. 675,577, should be sustained.

The C. C. A., 8th Circuit, 1909, in Demming Wire and Fence Co. *vs.* American Steel & Wire Co., 169 Fed., 793-799, held that the following claim which covered combinations of "means" and "mechanism" qualified

by functional statements to be not void as covering merely a function, or the function of a machine:

> "In a wire-fence machine the combination of mechanism for intermittently feeding a plurality of longitudinal strand-wires, mechanism for intermittently feeding a plurality of stay-wires simultaneously and transversely of the strand-wires, mechanism for cutting off suitable length of the stay-wires to span the space between the strand-wires, and mechanism for simultaneously coiling adjacent ends of the lengths of the stay-wires around the strand-wires."

The U. S. Supreme Court, 1909, Leeds & Catlin Co. *vs.* Victor Talking Mach. Co., and U. S. Gramophone Co., 144, O. G., 1089, held that a claim for a sound-producing apparatus consisting of a traveling tablet having a sound record formed thereon and a reproducing stylus shaped for engagement with said record and free to be vibrated and propelled by the same is not for the function of the machine, but sets forth a valid combination.

It must be admitted that the courts not only consider it their right, but their duty, irrespective of the form of the claim before them, to resort to the specification in order to find out the real invention, in interpreting and construing a claim of a patent. This course they pursue whether the claim is expressed in broad or limited terms, in order to determine whether the invention is of a primary or pioneer character or merely a limited improvement on the prior art, so that the range of equivalents may be broadened or limited in accordance with the chracter of the invention disclosed. In view of the above facts, therefore, what valid objection can be urged against the allowance by the Office, of claims for a combination of mechanical devices, which effect a desirable result, never heretofore attained, when the devices or elements of the combinations are included in the claims by the generic and all-inclusive terms as "means" or "mechanism" qualified by a statement of function performed? The objections herein above men-

tioned that such claims do not respond to the requirements of section 4888, R. S., and that they are for a "function" and that they are "vague and indefinite" and "broader than the invention" have, it is thought, been disposed of by the decisions of the U. S. Supreme Court and various Circuit Courts of Appeal, herein called to attention. There was another objection to claims of this character that has been urged by the Office, and that was to the effect that the construction covered by a claim should be set forth in such a clear, concise, and exact manner, that the court would not have to be compelled to resort to the specification in order to find out what was the exact invention intended to be covered. This objection, however, is without weight, since the courts have asserted their right and duty to consider the specification in connection with the claim, not to save the claim, faulty in character by reason of its broad and generic terms, or to remove therefrom its apparent structural limitations, but solely for the purpose of discovering the principle and operation of the invention, so that they could then determine the proper range of equivalents to be given to the construction covered by the claim.

We all know how very difficult it is, in view of the limitations of language to place structural limitations on the mechanical elements of a combination that happen to be selected to carry out the principles and operations of a pioneer invention. In doing this how often a meritorious inventor is needlessly deprived of the full measure of his invention. A structural limitation, at the time of drawing the claim, may appear to be broadly expressed, and essential to the carrying out of the principle and operation of the discovery or invention. At a subsequent time, when greater light is thrown on the subject, this limitation may clearly appear to be an unnecessary one. In the absence of any reference showing a combination of elements effecting the new and desirable function, stated in a claim, why should not the broad and all-inclusive terms "means" and "mechanism" followed by a statement of function be permitted?

In view of the decisions of the U. S. Supreme Court as well as the majority of the Courts of Appeal of the different circuits herein mentioned, would any one

(other than a defendant to a suit brought on a claim of the type under consideration, for a broad invention) urge that the claim was for a "function" or for *any* means that might in the future be invented no matter how radically different they might be from the specific means disclosed.

It is thought that the weight of the decisions of the courts, in recent years, tend to support the view above maintained that in the absence of any reference showing the "means" as well as the function, stated in the claim, a patentee will be given and is entitled to protection, only for that which he has invented and produced and the substantial equivalent thereof no matter what the breadth of the terms employed in the claim.

It might be urged upon a cursory reading of the decision in the Davis Sewing Machine Co. *vs.* New Departure Mfg. Co. (C. C. A., 6th Circuit, 217 Fed., 775) rendered by Judge Dennison, who was so kind as to address us here two years ago, that an inventor should be permitted to employ the terms "means" and "mechanism" qualified by function, only when such terms are intended to include elements or parts already well known in the art and designed to cooperate with some new element or parts in order to make a completely operative combination. Such terms, however, qualified as stated, should not be used to include the *real point or gist* of the invention. Upon a careful consideration of this decision in the light of the other court decisions discussed therein, it will be found that the doctrine laid down therein does not differ from that found in the Supreme Court decisions of Westinghouse *vs.* Boyden; Morley *vs.* Lancaster and Paper Bag case (C. D., 1908, page 594). This doctrine, briefly stated, is in effect that when an inventor is merely an improver in an art, and has produced a construction or combination intended to effect some result in a better or more perfect way than it had heretofore been performed, and in order to do this he has produced a specific construction, then the real invention resides in the specific construction and the claim should be couched in such definite and exact terms, as to *structurally* differentiate the invention from inventions of the prior art, designed for effecting the same result or func-

tion. Even in claims for a mere improvement in the prior art, the doctrine of equivalents may be invoked, but, in such instances, the range of equivalents is greatly limited, as compared with a claim for a new combination of mechanical elements, which perform a desirable and useful result never before effected by mechanical means.

It is contended that under the doctrine of construction of claims as laid down by the courts, it is first necessary to ascertain from the description and claim what was the real purpose and intent of the inventor. If the purpose was to accomplish a desirable result or function never before attained by mechanical means, and, in order to do so, he selects a plurality of old or new elements, or groups of elements and cooperatively combines them and thereby effects this result, then the invention falls within the range of "pioneer" inventions. In such a case these new or old "elements," or groups of elements, may be included in a claim by the broad and all-inclusive terms of "means" or "mechanism" properly qualified by a statement of result or function performed. On the other hand, however, if on reading the specification and claim we find that the inventor merely proposes to perform in a simpler and probably more perfect way, some useful and desirable function, heretofore attained by mechanical means, then the inventor should be classed as a mere improver in the art, and his claims should not be permitted to define his specific construction, or *actual* invention by such broad terms as those under consideration, but the terms employed should bring out structural limitations in order to differentiate the construction claimed from the constructions of the prior art.

If an inventor has succeeded in producing a novel machine by cooperatively combining, say, for example, three old elements, or groups of elements, and the mechanical function performed, as a whole, is entirely new, then it is thought no one at this time will question the propriety of these elements or groups of elements being included in a claim by the broad terms of "means" and "mechanism" qualified by function. On the other hand, if before making this new combination of old devices, the inventor desires to go a step further, and

effect, not only the first mentioned new result or function, but an additional new function, and he discovers that by a slight modification in the construction of one or more of the old elements he will effect this *plurality* of new results (as was the case in the Morley machine) will any one contend that he would not be entitled to as much latitude in expression, in protecting his invention or discovery, as he would have been if he had not displayed such a high degree of invention? To hold otherwise would be tantamount to the contention that one who has shown a very high degree of originality should be more limited and restricted in the use of the terms employed in protecting his invention, than one who has disclosed an invention in lesser degree.

September 21, 1916.

ESTABLISHING NOVELTY BY AFFIDAVITS

A paper read September 21, 1916, before the Examining Corps of the United States Patent Office

BY

ELONZO T. MORGAN,
Second Assistant Examiner, Division Twenty-four,
U. S. Patent Office

WASHINGTON, D. C.
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THE LAW REPORTER PRINTING COMPANY, 518 FIFTH ST. N. W., WASHINGTON, D. C.

Establishing Novelty by Affidavits.

By

ELONZO T. MORGAN,

Second Assistant Examiner, Division Twenty-four,
U. S. Patent Office.

It is provided in Rule 76 that, when an application is rejected on reference to an expired or unexpired domestic patent which shows or describes but does not claim the invention, or on reference to a foreign patent, or to a printed publication, or to facts within the personal knowledge of an employee of the Office, affidavits or depositions supporting or traversing these references or objections may be received. There are some other classes of cases in which affidavits may be received to establish novelty but this paper will be confined chiefly to the ones above mentioned.

When claims are rejected on facts within the knowledge of an employee of the office, if the applicant requests it, the employee must make an affidavit supporting the facts. The applicant may then submit affidavits to contradict, explain or antedate the facts recited in the affidavit of the employee. For example, the facts set up in the affidavit of the employee may not carry the anticipation back two years from the filing date of the application in which case applicant will be permitted, if he can do so, to overcome the anticipation by an affidavit similar to those which may be filed under Rule 75, thus establishing the novelty of his device.

The other three classes of references above referred to are domestic patents which show but do not claim the invention, foreign patents, and printed publications. These three classes of references are grouped together

and may be overcome by affidavits filed in accordance with the provisions of Rule 75.

Rule 75 provides that—

"When an original or reissue application is rejected on reference to an expired or unexpired domestic patent which substantially shows or describes but does not claim the rejected invention, or on reference to a foreign patent or to a printed publication; and the applicant shall make oath to facts showing a completion of the invention in this country before the filing of the application on which the domestic patent issued, or before the date of the foreign patent, or before the date of the printed publication, and shall also make oath that he does not know and does not believe that the invention has been in public use or on sale in this country, or patented or described in a printed publication in this or any foreign country for more than two years prior to his application, and that he has never abandoned the invention, then the patent or publication cited shall not bar the grant of a patent to the applicant, unless the date of such patent or printed publication be more than two years prior to the date on which application was filed in this country."

Briefly, the affidavit must state *facts* which show that applicant had invented his device prior to the date of the reference. What is the meaning of the word *facts* as used in this rule? A statement of applicant's own conclusions drawn from the facts within his knowledge without revealing those facts can not be accepted because that would not comply with the terms of the rule. The facts are required in order that it may be ascertained whether applicant's conclusions are warranted.

Suppose a case in which the state of facts is, that applicant had, before the date of the reference, fully evolved in his own mind the device disclosed in the application complete in every detail, one element, then another and so on until he had finally and fully conceived the combination of all the elements together in the completed machine, but that he had never described this to

any one or made any model or drawings thereof, or any other manner of record. This may be a true statement of facts which would seem to comply with the terms of the rule in every detail but he should not be granted a patent. He has furnished no proof, that is, no corroborating evidence to support his own statements. In short, he has furnished no proof except his own unsupported statements of prior conception of the invention.

In the first decision rendered on this subject, *ex parte* Gasser, C. D., 1880, page 94, the general principles were laid down as follows:

> "The applicant, therefore, must state on oath facts showing either that a reduction to practice had been made before the filing of the application on which the patent was granted, or that the invention had been conceived before that time and by due diligence connected with a subsequent reduction to practice."

The general principle here stated has been quoted with approval in almost every decision on this subject since that time, so that this seems to be the well-established practice up to the present time. While this indicates clearly in general formula what is required, the application thereof to specific cases as they arise is not entirely unattended with difficulty.

It is the intention here to discuss some of the specific cases which may arise and to indicate what conclusions it is believed should be drawn therefrom. In order to bring out the practical problems as they may be presented in actual experience the decision in the case of *ex parte* Donovan, C. D., 1890, page 109, seems to have gone into considerable detail and the following quoted therefrom will serve our purpose:

"In *ex parte* Hunter (C. D., 1889, 218; 49 O. G., 733) it was stated that the rulings in *ex parte* Gasser and *ex parte* Saunders still governed the practice of the Office. Not only does the Office apply the principles laid down in *ex parte* Gasser in cases where it is sought to overcome a reference by an antedating oath, but it is difficult to see how in proceedings even *quasi* judicial, any

other course is permissible or even possible. It is the tribunal, which is to be satisfied that the applicant made the invention prior to the filing date of the reference. The witness states evidential facts which, when assembled, enable the Office to determine, first, whether the invention referred to in the affidavit was the same as that shown and described by the applicant, and, second, whether it was complete within the meaning of the rule before the filing date of the patent cited as a reference. To permit an applicant to prevail upon his naked statement that he conceived the invention and disclosed it to others, without stating by what agency the disclosure was made and the details of which it consisted, is to transfer the seat of judgment and decision from the tribunal sitting in the case to the mind of the applicant—a transaction radically defective in principle and contrary to all judicial usage. If the applicant made sketches, he should so state, and produce and describe them; if the sketches were made and lost, and their contents are remembered, they should be reproduced and furnished in place of the originals. The same course should be pursued if the disclosure was by means of models. If neither sketches nor models are relied upon, but it is claimed that verbal disclosures, sufficiently clear to indicate definite conception of the invention, were made, the witness should state, as nearly as possible, the language used in imparting knowledge of the invention to others. By whatever means the applicant claims to have disclosed the invention he must so present those means to the examiner as to enable him to determine whether or not the invention was present in the disclosure. The mere naked statement of the applicant that he disclosed the invention is of no avail, either to constitute evidence of disclosure or to impart sufficiency to a statement of facts in themselves inadequate."

The inference from this decision is that in a case in which applicant has lost his sketches or models and their

contents are remembered he may present a transcript from his memory and that will be sufficient to overcome the reference. Of what more evidential value is it to furnish a mental reproduction of a drawing which one has made than to furnish a detailed mental reproduction of what was in one's mind, as in the case of the man who has made no record? Has the examiner any more evidence before him from the man who says I made a sketch and lost it, but here is a sketch of my recollection of what it was, than he has from the man who says I did not make a sketch at the time this device was worked out in my mind but here is a sketch of what I had in my mind at that time? Or, in the other case, when the affiant says, I stated in substance this description of my device to A, but he is now dead and I can not furnish his testimony or affidavit? The inference from the decision above quoted is that the examiner should say to the applicant in the one case, your story may be true but you have not made a record of it or told it to any one and therefore it can not be accepted as sufficient. Shall the examiner then say to the applicant in the other case, you admit that you have no evidence, but you say you have had and it is lost, or your witness is dead, and because you have been so unfortunate, you may have a patent on your own unsupported statement? It should be remembered that these affidavits are not specifically required by statute and the affiant stands in no danger of being prosecuted for perjury, this proceeding not being a judicial one. What would it avail a litigant to come before the court and say, I have had witnesses to corroborate my statements but they are now dead, therefore I hand you herewith my recollections of what they knew and could say if they were here.

It has frequently been said that Rule 75 is not statutory and should be abolished. If it is meant by this that the particular mode of proceedings therein prescribed is not statutory, it is true; and some other process for proving the same thing, that is, priority of invention and right to a patent under the statutes, may be substituted therefor. But, if it is meant that when applicant is confronted with a reference antedating his application less than two years he should not be permitted

any opportunity to show that he is entitled to a patent notwithstanding the reference, then the statement that the rule is not statutory seems to be erroneous.

Section 4886 of the Revised Statutes provides as follows:

> "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, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceedings had, obtain a patent therefor."

Rule 75 constitutes the practice provided by the Patent Office for establishing certain rights which may accrue under the two-year clauses of this section of the statute. It appears that some adequate practice or process must be provided to carry out this section of the statute when conditions described in Rule 75 arise, because applicant may be able to appeal his case to the court and on a proper showing compel compliance with the statute and the grant of a patent.

In my view, the purpose underlying Rule 75 is not only proper but some such practice is necessary in order to carry out the provisions of the statute and give deserving inventors an opportunity to establish the novelty of their inventions by proper and convincing evidence. The great difficulty about the rule is that there is no opportunity to cross-examine the affiant and the case must rest on a *prima facie* showing.

The applicant who has competent evidence to offer, such as original sketches or drawings, or models, or depositions of others as to what he has disclosed to them, gives little difficulty, because he submits his proofs and would, probably, in a majority of cases, be only too glad

to submit to a cross-examination if opportunity were afforded. He should not be denied a patent because there is no provision in the practice for subjecting him to a rigid and searching inquiry. But the best of methods for securing justice may fail if they are not carefully and strictly enforced, and in these cases in which we can have no opportunity to search the mind of the affiant as to the accuracy of his statements it appears all the more important to require rigid compliance with the fundamentals prerequisite to a *prima facie* showing.

It is believed that excuses for not having corroborating evidence to substantiate an affidavit should never be accepted as sufficient. Such excuses, as the witnesses are dead or out of the jurisdiction and can not be found or the records are lost, but as I remember it here is what I could have proved, would not have the slightest standing in any court as a substitute for evidence. These excuses should only be accepted as a legitimate reason for introducing accurate and properly authenticated, that is, certified or clearly proven, copies of original records. For the examiner to accept these memory stories is to allow the applicant to establish his case by his own unsupported statements of what he has done.

While it might work a hardship to deprive one of a patent because he has been so unfortunate as to lose the evidence which would substantiate his case, it seems entirely unsafe for the Office to go beyond the pale of giving an applicant every opportunity to submit evidence to corroborate his statements. If any other course is followed it would appear to amount to nothing more than accepting an *ex parte* statement of conclusions of the applicant. To lower the standard of evidence to mere memory statements of the applicant is to open wide the door for fictions and fabrications.

It is true that a prima facie valid patent may be granted simply on a showing of facts. A preponderance of evidence, for example, is not required. It is not so much the quantity of evidence as the quality of it, that will constitute a prima facie showing sufficient to warrant the grant of a patent. The showing should be something that has evidential value in the sense of being corroborative of the statements contained in applicant's affidavit. It should be something independent of ap-

plicant's acts or statements during the time of the prosecution of his application, some record or disclosure he made, or some act he performed at the time alleged in his affidavit, which, if genuine or true, shows by its existence or occurrence the truth of his allegation.

It is submitted that the interests of the public and the inventors would be better served by requiring that an applicant to succeed under Rule 75 must furnish in addition to his own affidavit, corroborating evidence in the form of original drawings, sketches, models, or affidavits of other witnesses, or in other words, such competent and convincing evidence as would be admissible under the ordinary rules of evidence.

September 21, 1916.

The Development of Fundamental Principles Involved in the Patent System and Their Relation to the Examination of Applications for Letters Patent.

A paper read September 28, 1916, before the Examining Corps of the United States Patent Office

BY

JAMES H. LIGHTFOOT,
Principal Examiner, Division Twenty-five,
U. S. Patent Office

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LAW REPORTER PRINTING COMPANY, 518 FIFTH STREET NORTHWEST, WASHINGTON, D. C.

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BY

JAMES H. LIGHTFOOT,

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Introduction.

This paper is of a general elementary character, intended to be at least suggestive of a field of study which, because of its elementary character, may have been to some extent neglected and it contains reference to fundamental principles involved in the establishment of the patent system and in the grant and refusal of letters patent and some consideration of statutory provisions relating to the examination of patent applications which, it is thought, are in accord with elementary principles and fundamental law.

In this the most remarkable of all industrial ages men are studying and seeking as never before to find fundamental truths in all departments of human knowledge and effort. Men well know that the deeper and the more profound the ascertained fundamental facts and principles upon which human knowledge is based, the higher will be the character and substance of the structure and system of human attainment based thereon.

In the more limited field of law and jurisprudence, there are clear indications that men of profound thought upon the bench and in the profession of the law, are of the opinion that existing law and procedure should be revised and simplified so that legal fiction and technicality may not stand in the way to prevent the rendition of

decisions that accord with fundamental truth and simple justice.

And in a very special way the investigation of fundamental truths involved in the development of industrial progress, if applied in the work which we as judicial officers of the government are called upon to do, should, in some measure at least, result in a fairer view of the matters of substance which must be considered in determining whether products of man's creative genius shall or shall not be published to the world as patented inventions.

Moreover, it is believed that the work of examining applications for patents should be vitalized and made of more lively and absorbing interest to the examiner, and it is submitted that the thorough study of fundamental principles and the full and deliberate application of them to the examination of alleged inventions, may to some extent at least, assist in attaining this much desired end.

It is believed that before an examiner can appreciate the full importance and true significance of the judicial and technical work that he has to do, he should be thoroughly familiar with all fundamental principles involved in the grant or refusal of letters patent for inventions.

He should know whether patents are in fact monopolistic or not monopolies in restraint of trade; he should know of the educational character of the grant and its bearing upon the question of patentability; he should know of the contractual character of the grant and how it is involved in the proper attitude and point of view of the examiner in considering cases before him; he should know the true meaning of the constitutional provision upon which our patent system is based and its true relation to the character of the grant that should be issued; he should know the real meaning of the statutes, and he should know that existing statutes are absolute controlling factors in determining the practices involved in the examination of patent applications; he should know the law of evidence and how to weigh evidences of patentability or the want of it, upon the scales of evenly balanced judgment and justice alike to the inventor and to the people; and he should know that he, himself, is a very important positive factor, in probably the greatest constructive, industrial educational

system that the world has ever known, designed to create and encourage the industrial progress of the nation, and that he is not a mere negative elment standing as an obstruction to prevent the publication in patents of new discoveries and inventions that may promote the progress of the industrial arts and the consequent prosperity of the people.

NON-MONOPOLISTIC FUNDAMENTAL PRINCIPLE.

It is believed to be a matter of some importance that it should be known in the first place that the rights conferred upon true inventors by valid patents are not in and of themselves monopolies in restraint of existing trade, although letters patent, like any other form of personal property, as coal, wheat, sugar or meat, may or may not be a basis for monopoly if all or a controlling number of patents in given arts be bought up and improperly manipulated.

In order to contrast the kind of industrial grants which have been held to be monopolistic and other grants under valid letters patent which have been held to be not monopolistic, your attention is invited to the foundation decision in the case of Darcy *vs.* Allen, Kings Bench, 1602, in which it was sought to enforce a grant of the exclusive right to import and sell playing cards within the realm.

In this case it was decided upon demurrer that the grant was *void* because against the existing rights of the people, and that it was a monopoly under the common law, the court holding that:

> "There are three inseparable incidents of every monopoly against the commonwealth, (1st) that the price of the commodity will be raised, for he who has the sole selling of any commodity may and will make the price as he pleases; (2nd) that after the monopoly is granted, the commodity is not so good and merchantable as it was before, for the patentee having the sole trade regards only his private benefit and not that of the commonwealth, and (3rd) that it tends to the impoverishment of divers artificers and others who

before the grant, by the labor of their hands in their arts or trade, had maintained themselves and their families, but who now will of necessity be restrained to live in idleness and beggary."

Following this decision the same question came up in the well-known Clothworkers of Ipswich case Kings Bench (1615), and in this case it was held that the grant by the Crown of the exclusive right to work in the tailors' trade in the town of Ipswich was void as being a monopoly against the existing rights of the people who, it is held, "have the free and common right to work in any existing trade as the birthright of every subject."

However, in this same decision it was stated:

> "But if a man hath brought in a new invention or if a man hath made *a new discovery of anything*—in such cases the King of his grace and favor, in recompense of his costs and travail, may grant by charter unto him that he shall use such a trade or traffic for a certain time, because at first the people are ignorant and have not knowledge or skill to use it; but when that patent is expired the King can not make a new grant thereof, for when the trade has become common and others have been bound as apprentices in the same trade, there is no reason why such should be forbidden to use it."

This decision may properly be termed, it is thought, about the first to sharply distinguish between those grants of industrial privileges conferred by the Government in derogation of the prior existing rights of the people and commonly called monopolies and those other grants to men for limited times of rights to the exclusive ownership of the products of their own genius for invention and discovery, which are not grants in derogation of prior existing rights of the people, but, on the contrary, create new forms of property for the education and benefit of the whole people for all time.

Following this decision the Statute of Monopolies, enacted in 1624, especially excepted from its provisions the grants to inventors of the exclusive ownership of

their inventions for a limited time and thereby legally established in England the non-monopolistic character of the grant.

In this connection your attention is invited to a decision rendered more than two hundred years later by Justice McLean in the case of Parker *vs.* Haworth, 4 McLean, 370, in which he said:

> "The policy of the law which protects inventors is wise. It stimulates genius by endeavoring to secure a reasonable compensation to those who have spent their time and money in producing something of utility to the public. *It is not a monopoly the inventor receives.* Instead of taking anything from the public, he confers on it the greatest benefits; and all he asks and all he receives is that for a few years he shall realize some advantage from his own creation; not that he withholds his machine or discovery from the country, but that in distributing it he may receive a small compensation for the great benefit he confers. The triumphs of the inventor are intellectual triumphs. His demonstrations are made through mechanical agencies, but these in the highest degree are attributable to mind; and the same may be said of useful inventive mechanics generally. The usage of their thought embraces the system of natural philosophy in all its practical bearings; and, in carrying out their views, the highest degree of mechanical ingenuity. Through the labors of these men our country has been advanced by machinery on the land and on the water; in the saving of labor and in a rapid and increasing intercourse, and especially in the communication of intelligence in the last forty years more than could have been hoped for without their instrumentality, in many centuries."

FUNDAMENTAL EDUCATIONAL PRINCIPLE.

Besides bringing out the distinction between void grants of monopolies in restraint of trade and valid grants in letters patent for invention, this foundation decision

in the Clothworkers case indicates the fundamental reason why grants of letters patent should be issued, as shown in the following statement:

> "because at first the people of the Kingdom are *ignorant* and have not the *knowledge* or *skill* to use it."

Thus the education of the people in the practice of new and useful inventions, by the patented disclosures of inventors, is shown to lie at the very foundation of the patent system and to constitute the real reason for its establishment.

And although the fundamental object of the establishment of the patent system was to *educate the people* in the practice of new inventions and thereby to promote industrial progress and prosperity, and although the patent system has developed into an enormous industrial educational system in which should be interested every person, firm or corporation that may make, use, or sell manufactured commodities, it is probable that there is greater elementary ignorance among the people in relation to this great system than about almost any other important subject. And this leads to the conclusion that the people generally should be educated, in an elementary way at least, about the provisions of this system which was established in their interest.

FUNDAMENTAL PRINCIPLE INVOLVING ANTICIPATION.

Referring again to the Clothworkers' case it will be seen that it contains also the first indication of the fundamental principle involved in the question of anticipation and the refusal of letters patent as shown by the following statement:

> "But when that patent is expired the King can not make a new grant thereof, for when the trade has become common and others have been bound as apprentices in the same trade, there is no reason why such should be forbidden to use it."

Thus it will be seen that not only is the education of the people in the practice of the new and useful inventions the fundamental object of the establishment of the patent system and the reason for the grant of letters patent, but the fact that the people have already been educated to practice alleged inventions is the fundamental reason for the refusal of grants therefor.

FUNDAMENTAL CONTRACTUAL PRINCIPLE.

This early decision also brings out to distinct view the first conception of the contractual character of the grant, for therein it is stated that it would be lawful to issue such a grant because it would be "in recompense for the costs and travail" of the inventor. And two hundred and seventeen years later, in the familiar case of Grant *vs.* Raymond, Chief Justice Marshall said:

> "To secure to inventors the exclusive rights to their discoveries is the reward stipulated for advantages derived by the public for the exertions of individuals and is intended as a stimulus to those exertions" and "The laws which are passed to give effect to this purpose ought to be considered in the light in which they have been made and to execute the *contract* fairly on the part of the United States where the benefit has been received."

SOME OTHER FUNDAMENTAL DECISIONS.

In the interval of time between the enactment of the Statute of Monopolies in 1624 and the adoption of the Constitution of the United States, there were several recorded decisions in patent cases in England which contain some of the fundamentals upon which our own patent system was established and among these decisions may be briefly mentioned the following:

(1) Edgeberry *vs.* Stevens (K. B., 1691) containing reference in a rudimentary way to the later provision of law that prior knowledge abroad of an invention will not defeat the grant of a domestic patent for the same invention.

(2) Dolland Case (C. Pleas, 1766) in which prior secret use of an invention in England, by which the public could not have been taught to practice the invention, was held not to invalidate a patent to another for the same invention, because the later inventor and patentee and not the earlier secret inventor was the means by which the invention was made known to the public.

(3) Roebuck *vs.* Stirling (House of Lords, 1774) in which prior public use of the invention in England was held to invalidate a later patent to another for the same invention.

(4) Arkwright *vs.* Nightingale (Com. Pleas, 1775) in which it was held that—

> "the specification is addressed to persons in the profession having skill in the subject, not to men of ignorance, and if it is understood by those whose business leads them to be conversant in such subjects, it is a sufficient specification under the law."

(5) Liardet *vs.* Johnson (K. B., 1778) in which a patent was declared void because the specification did not constitute a complete description of the invention, the court holding that—

> "the meaning of the specification is that others may be taught to do the thing for which the patent is granted and if the specification be false, the patent is void, for the meaning of the specification is that after the term, the people shall have the benefit of the discovery."

These decisions, it is thought, indicate the first evidences of a system of fundamental laws involving patents at the dawn of the modern industrial era, in that, even at that early date across the seas, there were distinct indications of the industrial value to the people that resulted from granting to inventors the exclusive ownership of their inventions for limited times as a consideration for the publication thereof in the interest of the people and to educate them in the establishment and practice of new arts and industries.

FUNDAMENTAL CONSTITUTIONAL PRINCIPLE.

It was probably with these facts in mind and having in mind also that the newly formed Union of States could not progress industrially without new means for solving the new industrial problems that lay before them, that Mr. James Madison on August 18, 1787, presented for the consideration of the committee of eleven of the constitutional convention, a memorandum of the several powers which he thought should be conferred upon Congress.

This memorandum contained the following two separate paragraphs:

> (1) "Congress shall have power to secure to literary authors their copyrights for a limited time" and
>
> (2) "Congress shall have power to encourage by premiums and provisions the advancement of useful *knowledge* and discoveries."

It will thus be seen that the fundamental conception in this country that is involved in the establishment of a system of industrial development is shown to have involved primarily the advancement and dissemination of *knowledge* of new discoveries and inventions and this conception of the educational character of such a system is clearly consistent with that earlier conception at first referred to in the Clothworkers case one hundred and seventy-two years prior thereto.

In the final form in which this matter was presented to the constitutional convention by the committee of eleven on September 5, 1787, the two separate paragraphs above referred to were combined into one and in the words so familiar to you all, it was adopted unanimously and without debate.

And sitting, as those men were in convention assembled, to invent and establish a new form of government consisting of the combination of executive, legislative and judicial elements which have cooperated to produce a new result in governmental machinery such as the world had not known before, it was but natural that they should have laid this foundation for the great industrial progress of this nation.

In plain and unmistakable terms, the constitutional provision tells the purpose and object of the establishment of the patent system in the words, "To promote the progress of science and the useful arts," and in so far as the writer has been able to discover, this is the only paragraph of the constitution which in terms provides for the promotion of industrial progress in the interest of the people.

As the phrase quoted clearly indicates the purpose and object of the establishment of the patent system, so also the only *means* provided by the constitution to be employed to carry that purpose and object into effect, is found in the words "by *securing* for limited times to inventors the exclusive rights to their discoveries."

It was to the ingenuity of the American inventors, then, that the founders of the Government looked to establish industrial enterprise and the fact that this nation today stands second to none in general industrial importance, is proof of the accuracy of the prophetic vision of those who placed the foundations of American material progress upon the shoulders of men who have been and are endowed with the power of original thought and the courage of original action.

GENERAL OBSERVATIONS AS TO FUNDAMENTALS CONSIDERED.

With these general considerations in view with regard to the historical development of the educational, contractual and constitutional characters of the grant, it may be assumed that the first and most fundamental test to be applied to the examination of alleged inventions in patent applications is this: Would the subject-matter if patented or published educate the people to practice a new or improved industrial art or construct a new or improved industrial instrumentality.

A favorable opinion of this question should be very helpful to the examiner in deciding doubtful legal and technical problems in favor of the applicant.

Viewed also from the standpoint of their educational character, patents should be granted in the interest of the people in all cases except where evidences of prior public knowledge of the alleged invention make it clear

that those of ordinary skill in the arts are, constructively at least, already in possession of that knowledge and, in view of the fact that it is in the interest of the public that they should without delay obtain this instruction, it is a matter of much consideration that patents be expeditiously granted, due regard being had, however, to thoroughness of the examination which eventuates in the final refusal or grant of the patent.

Viewed from the standpoint of the contractual character of the grant, patents should be granted in all cases where the consideration offered by the applicant in the character of the disclosure of the inventive subject-matter would be "sufficiently useful and important" (R. S. 4893) to the public and would constitute an adequate consideration for the rights conferred by the public upon the inventor in the character of the exclusive ownership of the right thereto. The contract should be fair in its terms equally to the inventor and to the public, and for this reason, the examiner should learn to study each case before him both from the standpoint of the inventor and from the standpoint of the public. In this way only will the examiner acquire such an unprejudiced, judicial attitude as is essential to the rendition of fair and impartial decisions in matters relating to patentability.

It may be helpful to the examiner to view the application as having an inter-partes character and as if it were an executory contract and to consider that he sits as a judge to determine from all the facts and the law involved, what the terms of that contract shall be when executed; remembering full well that if the terms of the contract are to be fair, the scope and character of the claims allowed should be in direct correspondence with the extent to which the people will have been instructed by the disclosure.

In the earlier ages of the patent system, some examiners held that they represented the people only and that it was their duty in the interest of the people to prevent the allowance of patents to inventors. A deeper study of fundamental principles, however, now reveals a fairer and better conception of the examiner's duty, a conception that is helpful to the examiner in that it cultivates the habit of evenly balanced judgment and

relieves him of the monotonous strain of one-sided effort, a conception that lubricates the machinery of legal and technical labor and that results in fairness and fundamental justice alike to the people and to the inventor. This conception is—that the examiner as a judicial officer of the government of the people, represents equally the interests of the people on one hand and those of the inventors, who are of the people, on the other. And then, this judicial character of the examiner's work in considering the rights of inventors as well as the rights of the people in cases before him, if pursued with an open, fair mind, will more eminently qualify him for the more remunerative but less important work of the patent solicitor and lawyer, or the more responsible but less remunerative work of the Primary Examiner, Examiner-in-Chief or Commissioner of Patents.

Viewed from the standpoint of the constitutional provision, patents should not be granted except in those cases where the arts and sciences may be promoted thereby and only in those cases in which inventors may be made *secure* in the *exclusive* rights to their inventions. It constitutes an obvious violation of the constitution to grant patents for alleged inventions which do not promote the progress of the useful arts, which do not make the inventor *secure* in his rights and which do not confer upon the inventor the *exclusive* right to his invention. In this connection it should be borne in mind that inventors may not be made secure in the exclusive right to their inventions if the claims granted be so broad or so improperly drawn as to be invalid in view of the prior art, or if the claims patented contain useless or unrelated limitations in addition to a fair definition of the real invention. This indicates the fundamental importance of mature and earnest endeavor to make thorough searches to find statutory bars if they exist and to so act upon applications as to eliminate from claims limitations that may be unnecessary and unrelated to the real invention.

ESSENTIALS IN THE APPLICATION OF FUNDAMENTAL PRINCIPLES.

Having now taken the liberty of inviting your attention generally to the non-monopolistic character, the educational character and the contractual character of the patent grant and to the constitutional provision relating thereto, it may be found of some little interest to consider some of the essentials that should be involved in the work of the examiner if applications are to be examined and patents granted in accordance with fundamental principles and fundamental law.

First, therefore, it would seem to be essential that the examiner should clearly appreciate the difficulty, dignity and importance of the work before him and the serious responsibility of deciding questions that may involve the material progress and prosperity of the nation and the failures or fortunes of men. Prominent jurists have expressed the opinion that the preparation and consideration of applications for letters patent involve the consideration of some of the most difficult legal and technical problems and that they themselves have ascertained from the judicial consideration of cases before them that the patent law constitutes what may be termed *the metaphysics of the law*. If this be the opinion of the justices of our Federal courts who, while maturely deliberating upon the questions at issue, are aided in rendering their decisions by the opinions of experts, by practical demonstrations, by the fullest possible presentation of facts bearing upon the question of validity both from the standpoint of the people and from the standpoint of the patentee, and by exhaustive briefs disclosing the law and the facts as presented by well qualified lawyers; if this judicial work under these he'pful and favorable conditions be considered most difficult and metaphysical, then surely the work of the examiner, who must often be his own legal and technical expert, who must search and produce evidences of invalidity as well as legal precedent for his own judicial decisions, who is often without the assistance of proper disclosure and practical evidences of patentability and without sufficient time and facilities to permit proper consideration of the serious questions presented—surely such combined legal, technical and judicial work may properly be

termed still more difficult than that of the jurist and may justly be termed the super-metaphysics of the law.

Having been thus impressed with the serious importance of the work before him the examiner should realize that there is no easy or superficial process of properly examining applications, and that the interests of the people and the interests of inventors alike demand the mature and thoughtful examination of all subjects matter presented, and full and fair consideration of all legal questions before him.

Secondly, Matters of Substance and Matters of Form.

If applications are to be granted in accordance with fundamental principles and fundamental law, the mind of the examiner should be trained and directed to an important consideration of all matters of substance and to relegate to a secondary position matters of form.

In order that the relative values of these questions may be gauged with some degree of accuracy, it must be determined in the first place what generally are matters of form and what generally are matters of substance.

The conclusion as to this question seems necessarily, under the law, to be that all matters that would affect the validity or the scope of the patent when granted may be considered matters of substance, and all matters which, according to statute and court precedent, have been considered *not* to affect the question of validity or scope of the patent may be considered matters of form.

If these holdings be accepted, it follows that matters of substance must be of material and controlling importance, and matters of form must be of secondary importance.

So far as the statutes are concerned it does not appear that they give prominence to any formal matter within the scope of the examiner's work, and in view of the fact that a court will presume that all such formal requirements have been complied with even where from the patent file it does not appear positively that such requirements were in fact complied with, the small, relative value of mere formal matters may be clearly seen.

However, it appears that in office practice and apparently without basis in fundamental law, there has developed some phases of the so-called question of "form" that should be considered. This is especially true of what have been termed claims "bad in form."

In so far as known neither does the statute nor does any controlling foundation decision prescribe any form for any claim.

Claims that have expressed elements in the alternative have been considered "bad in form" as likewise have claims which have been held to be ambiguous, and such claims as are indefinite and such as may not define sufficient elements to support functional expressions. Yet the only fundamental legal requirement as to claims is that they shall "particularly point out and distinctly claim the part, improvement or combination" which applicant claims to be his invention. (Revised Statutes 4888.)

The writer can see no fundamental distinction in general character between claims which in the past have been objected to because bad in form and other claims which have been rejected because indefinite, and it is submitted that it would be conducive to a more expeditious consideration of applications if both the claims hitherto held bad in form and those hitherto held indefinite or functional were grouped together and all rejected because not drawn in compliance with the provision of the statute.

Thirdly, Complete Disclosure of Alleged Invention and of All Matters of Fact Supporting Patentability.

If applications are to be examined and patents granted in accordance with the educational, contractual and constitutional requirements, it is submitted that before, and as a condition precedent to the first consideration and examination thereof, there should be not only a full and fair disclosure of the alleged invention, which disclosure should be so clear and exact as to enable any one skilled in the art without further experimentation and without the exercise of higher than ordinary skill to produce the invention and practice the same, but also as a condition precedent to the first consideration of a case there should

be a full presentation of facts and matters of truth substantiating the patentability of the alleged invention presented just as it is a condition precedent to a *reconsideration* of an application that facts and reasons supporting patentability be presented. The writer is not unmindful of the difficulties experienced by solicitors in extracting from their clients all matters of fact relating to the substance of the invention, but this condition does not alter the fact that frequently the examiner, whether through ignorance or preconceived design of the applicant, has only the skeleton of the alleged invention to consider and examine, while the meat and the spirit of the invention are withheld from his consideration.

The consideration of applications has shown that only after a threat of final rejection, or after five or more years of prosecution of cases, have the real facts as evidence substantiating patentability been revealed to the examiner, whereas if these facts had been presented to the examiner in advance of his first consideration of the cases, it is probable that but one or two actions in these cases would have been necessary. What new result the alleged invention actually accomplishes in the art, whether the invention is practical or not, whether the invention accomplishes in fact the new results claimed therefor as indicated by a practical working of the invented subject-matter, and whether it does in fact promote science and the useful arts, are all material factors often already within the knowledge of the applicants and their attorneys at the time of filing applications, and it is submitted that as an essential condition precedent to a full first examination of applications, such matters of fact should be presented to the examiner in proper form as evidence along with the application when filed.

It is a known fact that upon appeals to the Board of Examiners-in-Chief fuller disclosures of facts bearing upon the question of patentability are presented than had been presented for the consideration of the examiner, and the longer the course of appeal the fuller the disclosure of these pertinent facts, and finally when, after the patent has been granted litigation ensues, then, may be, for the first time all the real reasons substantiating

validity that can be marshalled by the plaintiff are presented for the consideration of the court.

Besides the fact that both a disclosure of the alleged invention in such full, clear and exact terms as to enable those of ordinary skill in the art to practice the invention, and also a full presentation of facts as evidence substantiating patentability are essential to a full first consideration of an application by the examiner in accordance with fundamental principle, it seems clear that the public who permit the grant of patents and who are mainly interested and benefited by the grant of the patent should be advised of all facts bearing upon the matter of patentability, and these facts should be made a matter of record in each case whether they be presented before the first examination by the examiner or in response to official actions. There is no place in the proper prosecution and examination of cases for the allowance of claims in view of mere oral interviews, or in view of any reasons not of record of which the people may not be informed. See ex parte Eckbo, 116 M.S. Dec., 60.

In the case of every judicial tribunal known to the writer, excepting the examiners of patents themselves, the trial judge has all attainable affirmative and negative evidence before him *before* he renders his first decision, and no reason is seen why the examiners should be made an exception to this well established general rule.

Fourthly, Examination of the Alleged Invention. (Rev. Stat. 4893.)

If patents are to be granted with due regard to the rights of inventors as well as the rights of the people and in harmony with constitutional provisions, it is essential that a full and complete examination of applications such as is contemplated by Revised Statute 4893 be made. This examination should include not only a mature and critical reading and study of the specification and claims, and also drawings, if there be drawings, to determine whether the disclosure is as full, clear and exact as the statute (4888) requires, and to determine whether the matter as disclosed is operative or may lack utility, but the examination should also include *a fair*

search for patentable subject-matter in the disclosure as well as a full and complete search for references and other statutory bars, not only to the claimed subject-matter, but also to the disclosed subject-matter upon which the claims may be based, thereby forestalling the common practice of solicitors of shifting from one claimed subject-matter to another within the attainable prior art.

Were it true that claims presented in applications always are directed to the patentable subject-matter disclosed therein, the practice of searching for and examining only the matter claimed would obviously be the proper practice, but it is a conservatively stated fact in a fair proportion of applications presented, that the claims drawn are not directed to the patentable matter that may be disclosed in the specification and drawing. To substantiate the view that the whole application should be examined with a view to ascertaining what is the real essence and scope of the invention, if any therein, your attention is invited to Revised Statutes 4893 which provides that:

> "On filing of any such application and the payment of the fees required by law, the Commissioner of Patents shall 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."

From a fair interpretation of this statute it would appear, it is thought, that not only the claims, but the subject-matter upon which the claims are based and all allegations in the specification should be examined and considered with a view to ascertaining what is the real invention, if any, and it is to be noted that this provision is mandatory and not discretionary.

In this connection it appears to be contrary to a plain rule of reason that the word "examination" in Revised Statutes 4893 be given any peculiar, unusual or hypertechnical meaning.

In every other line of work wherein analysis, diagnosis,

examination or judicial determination may be involved, the matter considered is generally subjected to thorough investigation from all points of view. In all such cases, not merely one-sided statements or claims as to the matter under consideration, but the result of the investigation itself, determines the exact character of the matter being examined. Accordingly it is submitted that applications for letters patent should be subjected to such analysis and investigation as generally are all other kinds of work subject to investigation and analytical research.

In further support of the view that, under Revised Statutes 4893, a proper examination of an application should be directed to finding out what is the real invention disclosed therein in view of the prior art, your attention is invited to Vol. I, page 155, Robinson on Patents, in which it is stated that:

> "*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."

In still further support of the view that the proper examination of an application should extend through and beyond the claim made to the "alleged invention," to the real invention, if any, that may be disclosed, attention may be directed to the fact that there are clear indications that judges of the Federal courts, who are best grounded in fundamental patent law, are looking beyond the claims in suit, through mere "enviromments," to the real essence of the invention made and, where the terms of the claims make it possible, are construing patented claims so as to give them the scope and meaning necessary to cover the real invention made by the patentee. In this connection see the very able decision recently rendered by Judge Dennison in the case of Davis Sewing Machine Co. *vs.* New Departure Manufacturing Co., 212 O. G., 1057.

And if it becomes thus necessary for the courts to construe claims and go beyond them to find the real invention in order that the patentee may be given protection for that which he really has invented, it would

appear all the more important for the examiner to so examine applications as to ascertain what the real invention is and what are needless limitations, before the patent is granted, in order that the patent when issued may show upon its face what the real invention is and in order that this legal construction of the patent through and beyond the terms of improperly granted claims may be made unnecessary.

Aside from these considerations, if searches be made through and beyond the claim presented it may result in finding matter disclosed that would be of value to the public and which may form the subject-matter of patentable claims, but which would not have been found and claimed if the claims alone as drawn by applicant or solicitor had been examined, and if no search beyond the claim had been made for patentable matter.

It would appear to be quite clear, therefore, that only by a thorough search for patentable matter in applications as well as for statutory bars to the granting of patents will the grant be fair in its contractual terms and will it be made in accordance with the constitutional provision; and, moreover, this full first examination of matter in and beyond the claims would doubtless render subsequent searches largely unnecessary and would necessarily expedite the final disposition of applications.

Fifthly, Information in the Interest of Inventors and References in the Interest of the People Including Inventors (Rev. Stat. 4903).

If patents are to be granted in accordance with fundamental law, and also with fair regard to the interests of the two real parties to the contract, it is submitted that after examinations have been made of applications in accordance with an interpretation of the meaning of the Revised Statutes 4893 that is in harmony with the fundamental principles that have been referred to at length, official decisions rendered as the result of such an examination should be made in accordance with such an interpretation of Revised Statutes 4903 as will be in harmony with the contractual and constitutional principles involved.

Revised Statutes 4903 provides:

> "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."

It is to be noted that this statute contains a mandatory provision to the effect that *information* as well as references shall be furnished to applicants, and it is submitted that this information should be such as to aid in determining the true scope of the real invention disclosed in order that claims may be presented that may make the inventor secure in the exclusive right to his invention.

The term "references" doubtless applies to all matters of fact constituting, under the statute, evidences of want of novelty and also references to all matters of law and fact constituting evidences of lack of invention under the statute.

And since such references to matters of facts and law under the statute are to be cited in official decisions in the interest of the people to prevent the granting of patents that invade the existing rights of the people, and in order that the people as well as inventors may not be deceived by the grant of inoperative or invalid patents, it would seem only fair and reasonable to assume that "information" under the statute should be given in official decisions both as to matters of fact and matters of law that will aid applicants in securing patents that will conform to the elmentary principles involved in the contractual and constitutional characters of the grant.

SOME APPLICATIONS OF ELEMENTARY PRINCIPLES.

It may now be of some little interest to apply, in a simple way, the elementary and fundamental principles to which reference has been made, to some familiar

cases that frequently come before the examiner for consideration.

(1) Let us consider a case involving mill construction in which upon a thorough examination of the alleged invention as required by the statute the examiner finds that the claims for a crushing roll *per se* as presented are anticipated by the prior art, but upon search for patentable subject-matter finds a new and patentable invention disclosed in the relation that one crushing roll bears to another crushing roll. It is submitted that it is in accordance with fundamental requirements involved in the educational, contractual and constitutional character of the instrument under consideration and in accordance with a fair interpretation of Revised Statutes 4903 in harmony with these fundamental principles that information be given to the applicant of this patentable matter in order that it may be published in a patent to instruct and educate the people.

(2) Let us now consider another case involving the alleged combination of a grinding element having a new grinding dress with a new means of fastening the element upon its shaft. This claim may be patentable in so far as the prior art is concerned and it may be in the selfish interest of the people as one party to the contract that such a restricted claim be allowed. But the interests of the inventor are of equal weight and value with those of the people and viewed from the inventor's standpoint, such a claim should not be allowed, because it does not make the inventor secure in the exclusive right to what he has really invented and because the contract would not be fair in its terms to the inventor if granted for this subject-matter. It is submitted that in such a case as this the claim should be rejected for want of patentable combination between the grinding element with its particular dress on one hand and the particular means of fastening the element to the shaft on the other, and in accordance with the provisions of Revised Statutes 4903 applicant should be informed that separate claims, some to the grinding element with its dress and others to the means of fastening the element to its shaft may be allowed and that it is a useless limitation to claim such features in combination. It is submitted that there is just as much warrant in fundamental law for the refusal

of claims which by reason of unnecessary and unrelated limitations (whether they be new or old), may make inventors insecure and unexclusive in their rights, as there is for the refusal of claims which would deceive the public and be worthless to inventors, because invalid in view of the prior art.

(3) Let us consider a case for mill construction in which the claims for a crushing roll having a special crushing dress and made, say, of manganese steel, are found to be patentable in view of the prior art, but upon a thorough examination of the alleged invention the examiner ascertains that the claims contain useless limitations by reason of the needless restriction as to the material of which the roll is made. The examiner knows the fundamental principles involved in the contractual character of the grant in that the claims granted should be commensurate in scope and character with the scope and character of the disclosure made in the interest of the public, and the examiner knows that the presence of useless limitations in these claims may prevent the inventor from being made secure in the exclusive right to the real invention (the roll provided with the crushing dress) covered thereby as provided by the constitution, and accordingly in order that the patent may be granted in accordance with the provisions of fundamental law it is submitted that under the provisions of Revised Statutes 4903 the applicant should be given this information which has been acquired by the examiner, and he should point out to the applicant the true scope of his invention and what are the useless limitations in his claims.

(4) A case for, say, a grain thrashing mechanism is now considered in which is presented claims for alleged combinations of distinct and separate subjects-matter, for instance, the feeder and the cylinder threshing mechanism. The examiner in examining this case finds that the combination broadly is old and that each element is old as claimed. Both from his own study of the law relating to patentable combination and from a careful study of the very able but conflicting opinions expressed in papers read by examiners during the past year, the examiner has a very clear conception of the law relating to the patentability of combinations of old

devices. He therefore cites references to show that the combination claimed is old and that the separate devices are old and rejects the claims for want of invention in assembling the old devices in one structure, if no new relation or result appear to the examiner. However, in order that the decision of the examiner may be in conformity with the elementary principles referred to and comply with a fair interpretation of Revised Statutes 4903, it is submitted that the applicant should be given information as to the law points involved, to the effect that the rejection is made in the absence of evidence of patentable combination among the parts indicating the production of a new or improved result, the production of an old result in a better way or in the absence of a showing that one or more of the parts are caused to operate differently in the alleged combination than it or they did before in their separate capacities; and as indicating what is meant by a "new result" under the law, it is suggested that the decision in the case of Deere & Co. *vs.* Rock Island Plow Co., 82 O. G., 1561, be studied. In this case the judge said:

> "The new result of a patentable combination is a result which is new and distinguishable as compared with results produced by the elements in their separated state or as assembled in a mere aggregation without functional relations to each other. A combination is not unpatentable merely because its results may also have been accomplished by other combinations."

If, in searching for patentable matter, however, in the above noted case it appears from the disclosure that, for instance, there is a new relation of the feeder to the thresher in that the material is so fed and controlled by the feeder as to prevent choking the thresher cylinder, it is submitted that information as to the matter should be given under the statute.

(5) Another case involving mill construction may now be considered in which a thorough examination under Revised Statutes 4893 discloses the fact that the claims define a new and distinct subject-matter patentable in itself in view of the prior art, in the character of new grinding mechanism *per se*, in alleged combination with

feed mechanism, screens, and discharge mechanism which, together with the grinding mechanism, constitute the whole machine.

In such a case as this, it is submitted, references should be cited to show that the general combination is old; that therefore the people need no further instruction as to how such devices should be combined and such claims should be rejected because it is shown that applicant did not invent the combination, but he should be informed that he did invent the crushing mechanism *per se*.

There are several reasons why such claims as this, whether they be the only class of claims in the case, or are claims needlessly drawn in addition to other claims which properly define the real invention in view of the prior art, should not be presented or granted, some of which reasons are the following:

(1) Because, if such claims be presented for examination they compliciate the work of the examiner by requiring searches for and examination of a plurality of distinct and often unrelated inventive subjects-matter in each claim and thus materially prolong the examination and prosecution of applications in this office.

(2) Because, if granted, such grant would be violative of the basic principle involved in the educational character of the grant in that the public having been once educated to make such combinations there is no reason or warrant in fundamental law for granting a subsequent patent to again educate the people to combine such devices.

(3) Because such claims are violative of the contractual agreement of the applicant to comply with the terms of the statute (4888) which provides that:

> "Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall . . . particularly point out and distinely claim the part or improvement . . . which he claims as his invention or discovery."

(4) Because such claims in patents are violative of the contractual character of the grant, in that they do not define the real invention in terms coextensive with a less limited inventive subject-matter disclosed and in

that being thus unduly limited they constitute invitations to the patent expert freely to extract the essence of the real invention and conceal it in other material embodiments thereof.

(5) Because such claims in patents are violative of the constitutional provision in that they may not make inventors secure in the exclusive rights to their real inventions.

(6) Because such claims in patents have confused the minds of the trial justices and have led to many inconsistent and conflicting decisions in the various judicial circuits.

(7) Because such claims in patents make more difficult the task of the highest and best type of legal practitioner, who in more modern times, in the interest of their clients, seek to prevent litigation where possible, whereas, such claims constitute an obvious means of promoting prolonged entangling litigation so harmful alike to the public and to inventors.

(8) Because such claims if granted in patents may deceive the public in the belief that the patentee had invented the whole defined subject-matter; and in this connection your attention is invited to the foundation decision in the case of Evans *vs.* Eaton, 7 Wheaton, 356. In this case the plaintiff brought suit upon a patent for hopper-boy construction in a mill. The claim in this case covered inferentially, at least, the whole of the hopper-boy construction though the plaintiff had in fact made merely an improvement upon prior general machines. The plaintiff held that his patent was to be construed for either the whole machine or, if not susceptible of this construction, it should be construed as being for an improvement. So, thus early in the judicial consideration of patents we find the court confronted with one of the now familiar claims in the character of a nose of wax in which the real invention is so obscured in "environments" or additional matter as to permit the plaintiff to conceal his real invention and then, if his patent be litigated, he may seek to have it construed in one way to suit one condition, or in another way to suit another condition.

Justice Story, the famous patent jurist of the early days of the patent system, in deciding this case after

referring to the claim drawn as having "a double aspect" said:

> "The very terms of the patent, as they have been already considered, and as they have been construed at the bar by the plaintiff's counsel, at the present argument, seem almost conclusively to establish that the patent is for the whole machine, that is, for the whole of the improved hopper-boy, and not for a mere improvement upon the old hopper-boy.
>
> "It is clear that the party can not entitle himself to a patent for more than his own invention; and if his patent includes things before known, or before in use, as his invention, he is not entitled to recover, for his patent is broader than his invention. If, therefore, the patent be for the whole of a machine, the party can maintain a title to it only by establishing that it is substantially new in its structure and mode of operation. If the same combinations existed before in machines of the same nature, up to a certain point, and the party's invention consists in adding some new machinery, or some improved mode of operation, to the old, the patent should be limited to such improvement, for if it includes the whole machinery, it includes more than his invention, and therefore can not be supported.
>
> "The specification has two objects: one is to make known the manner of constructing the machine (if the invention is of a machine), so as to enable artisans to make and use it, and thus to give the public the benefit of the discovery after the expiration of the patent. It is not pretended that the plaintiff's patent is not in this respect sufficiently exact and minute in the description. But whether it be so or not, is not material to the present inquiry. The other object of the specification is, to put the public in possession of what the party claims as his own invention, so as to ascertain if he claims anything that is in common use, or is already known, and to guard against prejudice or injury from the use of an invention which the party may otherwise

innocently suppose not to be patented. It is, therefore, for the purpose of warning an innocent purchaser, or other person using a machine, of his infringement of the patent, and at the same time of taking from the inventor the means of practicing upon the credulity or the fears of other persons, by pretending that his invention is more than what it really is, or different from its ostensible objects, that the patentee is required to distinguish his invention in his specification. 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 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? It seems to us perfectly clear that such a specification is indispensable, and we are of opinion that the inventor ought to describe what his own improve- is, and to limit his patent to such improvement."

The concealment of the real invention in alleged combination claims, whether through ignorance or by design, constitutes at the present time, as it did in 1822, one of the most serious abuses existing in patent practice, and unless the allowance of such claims be discontinued, it will constitute one of the most potent causes in impairing the usefulness of the patent system. These views in relation to the inclusion of useless limitation in claims containing patentable subject-matter are not only those of the best informed of the jurists of the early period of the patent system, but are also those of a thorough student of patent law upon the Federal bench and of two of the foremost patent lawyers of today, as have been evidenced by addresses made by them before this body of men, and the fact that examiners have been deciding cases for some years in accordance with these fundamental principles in order that patents granted by them may make inventors secure in the exclusive right

to their inventions, constitutes conclusive evidence that the opinions of Justice Story and those of the able gentlemen who have appeared before us are absolutely correct.

It is submitted that in decisions by the examiners in such cases as this, references showing the general combination should be cited, references to the fundamental law should be cited, and "information" under the statute should also be given to the applicant to show that his real invention may consist in the distinct inventive subject-matter that is original with himself and not in the alleged combination and, moreover, that it is a needless limitation to claim other matter in alleged combination with the real inventive subject-matter.

This does not mean that in all cases where novel inventive subject-matter of a distinct character is claimed with other matter, the claim should be rejected for reasons above stated. In many cases the novel subject-matter is in such relation with the other matter as to cause it to operate differently than it did before, and this may be termed a patentable combination of a new subject-matter and other devices. In such cases if claims for the patentable combination only be presented, it is submitted that, in the interest of the inventor he should be informed that claims for the patentable improvement *per se*, as well as for the patentable combination including the same may be allowed, for only in this way may the contractual and constitutional essentials be embodied in the grant of the patent therefor.

It is believed that a sufficient number of cases has been referred to, in order to indicate to some extent the writer's impression of the true meaning of Revised Statute 4903 and of its accord with fundamentally right principles as applied in rendering decisions as to patentability, and accordingly more extended specific references to cases will not be given. The examiners well know the law relating to all of the other grounds of rejection constituting bars to grants of claims, whether they involve the question of change of material, substitution of equivalents, duplication of parts, omission of parts, mere mechanical skill, etc., and it is submitted that, in decisions in all of such cases, not only references to prior

art and references to legal precedent unfavorable to the grant should be cited, but also "information" under the statute that will aid inventors as to how to overcome statutory bars, should also be given therein.

Sixthly, Notice of Prior Pending Art Under Revised Statutes 4904.

If patents are to be examined and granted with a view to making inventors secure in the exclusive rights to their inventions, in accordance with constitutional requirements, it is essential that notices of the prior unpublished pending interfering art be sent in all applications which would be anticipated or interfered with by the prior pending art disclosure, just as notices of prior published art are sent in *ex parte* cases.

Your attention is now called to Revised Statutes 4904 which is as follows:

> "Whenever an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, he shall give *notice* thereof to the applicants, or applicant or patentee, as the case may be, and shall direct the primary examiner to proceed to determine the question of priority of invention. And the Commissioner may issue a patent to the party who is adjudged the prior inventor, unless the adverse party appeals from the decision of the primary examiner, or of the board of examiners-in-chief, as the case may be, within such time, not less than twenty days, as the Commissioner shall prescribe."

It is to be noted that the statute refers to interfering "applications" and "interfering applications and patents," and not to mere *claims* for substantially the same invention, as per Rule 93.

Now, since it is essential that patentable matter be found in alleged interfering applications before an interference can be declared, and if a proper determination of the fundamental meaning of Revised Statutes 4893 and 4903 resides in the requirement that the examiner search for patentable matter as well as search

for statutory bars if they exist, and to furnish helpful information to inventors as well as to cite references, and if it be fundamentally right to set aside legal fiction in favor of fundamental fact and truth, then the essential is that an application interferes with another application or patent under the statute when the real invention in one application interferes with the real invention in another application or patent without reference to the particular claims which may happen to be drawn, whether by those who, having proper qualifications, draw claims to the real invention disclosed, or by those who by reason of ignorance, inadvertence, accident or mistake draw claims that are not directed to the real invention disclosed. It is believed that under the plain broad terms of the statute interference exists whenever co-pending applications or applications and patents contain common patentable subject-matter, and whenever the allowance of patentable matter in one case would interfere with the exclusive rights granted in another case. The terms "application" and "interfere" should be given their broad, plain and ordinary meaning and not a forced meaning based upon the legal fiction that the claim already presented defines the real invention and that the question of interference must be decided upon the claims that happen to be drawn in the respective cases no matter how ignorant the claimant may be in one case or how skilled the applicant may be in another case. An invention properly claimed in one case is not a different invention when, through inadvertence, accident or mistake, it is improperly claimed in another case or even when disclosed but not claimed at all therein. Proper prosecution and examination of both of such cases would necessarily result in finally allowing claims to the same real invention in both cases, and it seems quite reasonable to assume, therefore, that in determining the matter of the declaration of interference, consideration should be given through and beyond the claims already drawn to the real invention in each case.

It is believed that, in the past, when considering whether an interference should be declared, much error and consequent injury has been occasioned by determining this important question before one or more of the applications under consideration have been fully

prosecuted and examined with a view to ascertaining what is the real invention made by the applicant, and it is believed that before an interference is to be declared, it should be fully determined by proper examination and prosecution what is the real common invention in all cases involved.

The view that applications or applications and patents interfere when the right to the real invention in one case interferes with the right to the real invention in the other case without reference to the particular claims that may be drawn, does not mean that interferences should be declared in all such cases, but it does mean that in all such cases "notice" under the statute should be given to each party of the real interfering invention of the other party.

The importance of this *notice* under the statute can not be over estimated, because if notice be withheld and patents be granted without notice of anticipating prior pending art or pending art that would render insecure the rights already granted in the patent, the fundamental contractual rights, the constitutional rights of the patentee and the plain broad terms of the statute would be violated.

A case in illustration may be given by referring to claims involving a crushing roll having a novel crushing dress as an element of an organized mill. In one application filed by one inventor merely the roll *per se* having a particular new grinding dress is disclosed and claimed. In a later application disclosing the same roll having the same dress filed by another inventor, through ignorance, inadvertence, accident or mistake, merely the alleged combination of a roll with a grinding dress together with the elements of one of the several different forms of general mill construction is claimed. Claims to the crushing roll *per se* having the particular dress if they were presented would be allowable in the second application in view of the prior art, and if an interference were declared, evidence might be produced to prove that the second applicant was the first inventor thereof. However, no interference is declared, and the combination claim is patented without notice to this later applicant of the existence of the prior application in which the roll *per se* is claimed. This patentee has constructive

notice of all published anticipatory matter affecting this claimed matter and having no actual notice of prior interfering pending matter he presumes that there is no pending anticipatory matter that would prevent him from enjoying the exclusive right under the constitution to his invention that has been granted him, and may be he has established a plant and has procured others to make investments therein. Then afterwards the grant of the patent upon the roll *per se* soon convinces him that there is an interference with this right to practice his real invention and that he has no secure and exclusive right to make the invention made by him and much business disturbance and financial loss results.

It may be said that this fundamental wrong may be righted by a reissue of the patent first granted or by filing a divisional application, but in such cases if either the reissue or divisional application eventuate in a patent for the roll *per se* there would be two patents for the same invention which is plainly in violation of the fundamental principles which have been referred to in so much detail in this paper and would doubtless result in injury to the public.

In order further to illustrate the broad fundamental principle thought to be involved in a fair interpretation of Revised Statute 4904, let it be presumed that case "A" is filed in which is claimed "A tablet of wax-like material having a record of sound vibrations *cut therein*." The applicant in this case being skilled in the proper practice of drafting claims for the real substance of inventions and having in mind correct fundamental principles, does not conceal this broad invention in an alleged combination of elements of a sound reproducing machine, but distinctly defines his real invention in order that the people may clearly know the precise scope and character of the invention newly made. The examiner upon examining the alleged invention presented finds that the claim is clearly patentable in view of the prior published art. But upon investigation of the pending art the examiner finds an application "B" long pending and disclosing and claiming a method of duplicating sound records, the first step of a claim therein being: The method of duplicating sound records which consists first, in cutting in a tablet of wax-like material

an undulatory record of sound vibrations and then electroplating, etc. There are no claims in this case "B" for the process of making records of sound *per se*, or for the record made as claimed, but this new and patentable matter is covered up in the complicated claim referred to and accordingly no interference may be declared between cases "A" and "B" under the terms of Rule 93. Application "A" is allowed and is patented for the *exclusive* right to make, use and sell the record tablet as claimed therein, notwithstanding the fact that the Government when granting this exclusive right has full knowledge of the prior pending art as in case "B," which would necessarily invalidate the patent and make it *unexclusive* when afterwards the patent in case "B" is issued. The patentee in case "A" then knows for the first time practically, if this office did not know technically, that there was and is interference between case "B" and his case and that the grant by this Government has been not only valueless, but has occasioned much loss and business disturbance.

It is submitted that the grant of a patent to "A" without *notice* under 4904 of the Prior pending art that would interfere with the rights granted therein is not only clearly in violation of the contractual and constitutional character of the grant, but also is in plain violation of the express terms of the grant.

It is submitted that in all cases in which the real invention in pending applications or applications and patents interfere, notices should be sent to the parties whose interests would be affected without reference to the particular claims in the cases and that interferences should be declared in all such cases.

While these elementary observations have been made with reference to the question of interference with a view to inducing the examiner to study the fundamentals involved in the matter of interference under the statute, yet in order that this general question may be pursued a step further, the practice under Rule 75 will now be considered.

We have in former lectures been well informed of the essentials of affidavits under Rule 75 filed in order that the bar of prior patents granted within two years prior to the application may be avoided.

It is, however, with reference to its relation to the matter of interference under section 4904 that consideration will now be given. And to illustrate the fundamental point sought to be made resort will again be made to the crushing roll and the machine including the crushing roll, for illustration. Let it be assumed that the application filed by one inventor for the alleged combination including the novel crushing roll was filed first and the application by another inventor for the novel crushing roll *per se* has been later filed. And let it be assumed that the application for the alleged combination has gone to patent without notice to the later applicant and the claim for the roll *per se* has been afterwards rejected upon the patent. The inventor of the roll *per se* files an affidavit under Rule 75 in which he states facts showing that he completed the invention in this country prior to the date of filing of the patentee's earlier application and his patent issues for the novel roll *per se*, so that we now have two patents granted, one for the combination including the novel roll, and one for the novel roll *per se* and the exclusive rights granted to the first patentee are thus interfered with by the superior exclusive rights granted to the second patentee without notice to the first patentee. The real invention in these two cases is the same, for as we have seen in considering the educational and the contractual character of the grant, the real invention is that embodiment of the inventive disclosure which corresponds in scope and character with the extent to which the people will have been educated thereby and in both of these cases the people will have been taught to make a new and useful crushing roll and if it be that the real invention is the same in both of these cases and that the invention in one case does not become a different invention in another case because in may be improperly claimed therein, then it is submitted as a matter for elementary consideration and study whether under Revised Statutes 4904 before the allowance of the later application the prior patentee should not have been notified of said later application, the grant of which would interfere with the already existing exclusive rights granted to him. Not only in order to prevent violation of exclusive rights in the patent when granted, but also to prevent double patenting and to prevent harmful

litigation, notices under Revised Statutes 4904 should be sent both under Rule 75 and Rule 96 to applicants and to patentees advising them of the pending art containing claims that would interfere with the exclusive rights to which they would otherwise be entitled, without reference to whether the properly or improperly drawn claims be directed to the same matter or not.

These are some of the fundamentals which, it is thought, should be considered by those who may be unfamiliar with the elementary principles involved in the establishment of the Patent System and in the grant or refusal of Letters Patent for inventions, and the deeper and more thorough the consideration of these fundamental truths involved in the study and application of the principles to which reference has been made, the clearer will be the course to be pursued, not only in facilitating, expediting and improving the examiners' work, but also in avoiding criticism of, and in dissipating opposition to, the Patent System and to the present system of prosecution and official examination of patent applications.

If at any time, however, criticism or opposition to the Patent System appear among the people in whose interest it was established, the attitude of those concerned will doubtless be attributable to the following causes:

1st. Because the people generally have not been informed and do not know that letters patent for inventions are not monopolies in restraint of the existing right of the people, but that they create new forms of property for the whole people to be freely enjoyed by them after a period of exclusive ownership by the patentees.

2nd. Because the people generally have not been informed and do not know that the Patent System was established in the interest of the people as an industrial educational system, to educate the people to establish and practice new or improved industrial arts and enterprises and thereby to promote the indistrial progress and material welfare of the whole people.

3rd. Because the people generally have not been informed and do not know that Letters Patent for inventions, are contracts made in the ultimate interest of the people, between the people on one hand and inventors on the other hand, the terms of this contract being that

inventors agree to publish complete disclosures and distinct definitions of their inventions, which otherwise may be kept secret by them, and that the people in consideration of the disclosure and publication thereof agree to make inventors secure in the exclusive rights to their inventions, the Government through its designated officials being charged with the duty of seeing that the terms of these contracts are fair alike to the people and to inventors.

4th. Because the people have not been informed and do not know that the only means provided in terms by the constitution to promote industrial progress and prosperity, are the rights granted to inventors of the secure and exclusive ownership of their inventions for limited times.

And if criticism of or opposition to the present system of prosecution and official examination of patent applications at any time develop, this attitude of those concerned may be found to exist because of the following conditions:

1st. Because some of those who solicit patents are known to prosecute patent applications solely to obtain patents and the incidental fees, without regard to whether the alleged inventions may promote the progress of the useful arts in the interest of the people and without reference to whether inventors are made secure or exclusive in the rights to their inventions and,

2nd. Because we examiners, in some instances at least, have granted some patents the examination record of which shows the distinct need of:

1st. A uniform standardized system of instruction for assistant examiners (possibly in a single Division of Instruction), and,

2nd. A uniform standardized system of examination of applications consisting of:

1st. A mature and deliberate examination of the alleged invention in the whole disclosure to find patentable matter, in the interest of the inventor, and thorough search in the prior art to find statutory bars in the interest of the people as indicated in Revised Statute 4893.

2nd. Standardized official actions giving full information in the interest of the inventor and full citation of

references in the interest of the people as indicated in Revised Statute 4903.

3rd. Due and timely notice of all pending applications which would, if granted for the real inventions therein, interfere with and make insecure and unexclusive the rights to inventions in other applications or patents, as indicated in Revised Statute 4904.

It is submitted that only by some such uniform standardized system of examination of applications as this, may the work of examiners be made to conform to the fundamental principles involved in the educational character and in the contractual character of the grant and possibly only by such a system as this may the examiner's work be made to comply with constitutional requirements which are controlling.

September 28, 1916.

PROTECTION OF INVENTION

Having Special Reference to Electrical Methods and the Bearing of the Doctrine of Equivalents on Function and Method

A paper read October 5, 1916, before the Examining Corps of the United States Patent Office

BY

RICHARD E. MARINE,

Principal Examiner, Division Twenty-six,

U. S. Patent Office

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LAW REPORTER PRINTING COMPANY, 518 FIFTH STREET NORTHWEST, WASHINGTON, D. C.

Protection of Invention

Having Special Reference to Electrical Methods and the Bearing of the Doctrine of Equivalents on Function and Method

By

RICHARD E. MARINE,

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Some among you may recall the story, in the old McGuffy reader, of the little girl who chose as the title of her composition, "Time, Temperance and Industry." "Time," she wrote, "is short—we should all improve our time. Temperance is a very useful thing." Here, overwhelmed, she stopped. In selecting a subject it seemed to me best to discuss those questions with which we most frequently have to deal in the daily work of our electrical division, leaving subjects I knew less about for those who knew more about them. But when I came to write I felt much like the little girl—I was overwhelmed at the immensity of my subject and the things I thought to say seemed common knowledge. I will endeavor, however, to emphasize a few points of practice, with particular reference to electrical cases, which, if judiciously practiced, would, I believe, lead to increased patent protection and, at the same time, to the simplification of our patent system, the complexity of which is increasing at an alarming rate.

In all patent work it is most essential to bear in mind that it is for *invention* and *invention* only that the constitution and statutes sanction the grant of a patent monopoly (Const., Art. 1, sec. 8; R. S., 4886). A noted physicist says, "Find where the energy goes and you can solve any problem in physics." Likewise, find wherein the *invention* resides and the only problem concerning

the extent of valid patent monopoly is already solved. In his annual report for the year ending December 31, 1915, the Commissioner says:

> "Fundamentally, knowledge of the invention is more important than knowledge of the rules."

No solicitor can best prosecute a case at any stage of its proceedings and no Examiner can properly act on the same without a thorough knowledge of the *invention* in its relation to the prior art. He who sees the invention clearly will claim it clearly. He will present no endless chain of claims of indefinite and ambiguous meaning directed in part to other than the *real invention*.

The requisites of valid patent protection are:

(1) An adequate original disclosure.

(2) A correct determination of the statutory class to which the invention belongs, and

(3) The drafting of the claims in such form as to cover the entire unexpected advance made by the invention over the prior art and nothing more, nothing less.

DISCLOSURE.

New Matter.

A full and complete disclosure in the application as *originally* filed is, by statute, a condition precedent to the grant of a valid patent, yet many electrical cases, particularly those from abroad, are filed in such form that the real invention can not be determined even by one skilled in the art. A frequent error is the failure fully to disclose particular features vital to the invention or, if disclosed, to state their function when dependent upon a special design not set forth.

Statutory bars to substitute applications frequently exist and as a result, amendments involving questionable matter are either accepted and the validity of the patent grant thereby placed in jeopardy, or the patent is refused altogether. Broad statements in the original specification can not properly constitute a basis for subsequent specific amendments unless the matter added involves merely the *obvious* conventional way of translating the statements into practice.

Order in Specification.

Examination and search would be much facilitated if elements were ordinarily designated by *reference numerals* and described in numerical order, the detailed description being followed by a complete and concise statement of the *operation* of the invention.

Illustration.

While a full and complete disclosure is essential, on the other hand, the invention should be disclosed in its *simplest aspect*. For instance, where the invention resides in a motor provided with a main field, an armature and a compensating winding, bearing certain space relations to each other, the invention is best illustrated by the simplest form of diagrammatic view (see Chart for Draftsmen, Rules of Practice) showing these parts conventionally in their proper space relations (Illus.-Pats., 946,502; 1,138,673; 931,336). To present working drawings or a photographic view of such a motor showing details of base supports, casings, journals and bearings, or even the specific form of pole pieces and windings, where such specific forms are not of the essence of the invention, not only places needless labor upon the office but obscures the real invention. This is even more true of complicated systems of wiring involving many circuits. *Only circuits typical of the invention* should be illustrated and they in the *simplest form possible, duplication being ordinarily avoided*. An intricate working drawing of such a system is the bane of all who have to deal with it, and the amount of unnecessary time and labor in the aggregate, spent by the office, attorneys and the courts in deciphering it, both before and after patent, can not be estimated. If we multiply one such patent by the total number of this character among nearly one and a quarter million patents granted by our office we can appreciate what an unnecessary load our system labors under.

The *main* circuit and *all apparatus connected in series* therewith should be shown in *heavy* lines and, so far as practicable, *in the same horizontal or vertical direction*, while the *shunt* and *control* circuits should be shown in *lighter* lines preferably at right angles thereto. Lines should cross as little as possible. The arrangement of apparatus should be such as to keep the groups distinct and clearly show their relations at a glance (Illus.-

Pats., 1,113,199; 980,707; 1,170,211). Much ingenuity can be displayed in skillfully arranging the parts of electrical systems and all work in connection therewith is ever afterward facilitated thereby. So vital is this to a clear understanding of the invention that in some cases in division 26, it is necessary for the examiner to make his own layout of the system in working up the case.

In the case of *methods* each step of which involves a different particular arrangement of parts of an electrical system, in addition to the showing of the system *the arrangement of parts for each step should be diagrammatically illustrated in the most conventional manner, the diagrams being arranged in the order of the steps.* This is more important to a clear disclosure, even, than a complete layout of the system including the controller features and connections, since given the sequence of steps desired the designer or draftsman may well supply the latter (Illus.-Pats., 527,947; 516,834; 1,199,453; 587,340).

Where the drawing alone can not be made to tell the whole story of an invention, often a *legend applied to a part* will facilitate search. For instance, where it is essential that the field magnet of a dynamo electric machine be normally saturated the addition of the words "normally saturated" discloses at a glance the essential characteristic of the device.

STATUTORY CLASSES OF INVENTION.

Each of the four statutory classes of invention—art, machine, manufacture and composition of matter—finds illustration in the electrical arts.

The last class is illustrated, for instance, in brush and lamp filament compositions, insulator compositions, various battery compositions and the like. No problems special to the electrical arts are usually presented therein and further consideration of this class need not be given.

Article Defined By Process.

The same may be said of the class of manufactures save that comment may be made as to one question frequently arising in this class of cases, namely, whether such terms as "cast," "welded," and the like when used, for instance, to describe characteristics of parts of a dynamo electric machine, or, say, that portion of a metal casing surrounding terminal

connections for vacuum apparatus, etc., are objectionable as attempting to define the characteristics of an article by the process of making it. It would appear that where such characteristics are essential to the article as completed and these terms are employed with the intention to describe the present, final condition of the article rather than the method of arriving at that condition, whether that condition is apparent from inspection or not, no objection should be raised to the use of such terms, particularly where the English language affords no convenient substitute (*Ex parte Painter*, 1891 C. D., 200).

Method or Process.

A most perplexing question, and one open to great difference of opinion, as regards the class to which an invention should be assigned, arises in connection with the first two statutory classes—method and apparatus. This is particularly true of electrical cases. A most helpful discussion of the more general subject will be found in a very excellent paper by Mr. E. D. Sewall (Sci. Amer. Sup., Oct. 1 & 8, 1910), quoted at length by the Commissioner in his Georgetown lectures.

By the early construction placed upon the Supreme Court decision in *Risdon Locomotive Works vs. Medart* (158 U. S., 68; 1895 C. D., 330), suspicion was cast upon all methods not involving chemical or other elemental action and it seemed sufficient condemnation of a claim to state that it was for a "mechanical method or process." That this view was without justification appears from the later decision of *in re Weston* (17 App. D. C., 431; 1901 C. D., 290) and the Supreme Court decisions in *Steinmetz vs. Allen* (192 U. S., 543; 1904 C. D., 703) and the *Expanded Metal Case* (214 U. S., 366; 1909 C. D., 521), as well as from many of the earlier decisions of the courts.

That no reason exists for distinguishing between chemical and mechanical, electrical or other methods appears obvious from a consideration of the fundamental conceptions of those natural phenomena to which the patent field is confined. We learn from a study of the physical sciences that all natural phenomena involve just two conceptions—(1) matter and (2) motion; in other words every phenomenon in the physical world and

therefore every phenomenon in the domain of patent monopoly is one of change of position, or motion of matter. Matter we understand may exist as a mass, molecule, ion, atom, electron, etc., and all physical changes involve motion of one or more of these, whereby new relations between them are established. This is the field in which all inventors have to work and all inventions involve manipulations therein. *Methods or processes are concerned with the manner of moving portions of matter into particular relations to produce the final result; manufactures and compositions of matter involve the disposition of matter resulting from the performance of methods; while machines are automatic devices for performing methods.*

A new way devised for *moving* an atom of sodium from a molecule of common salt and *moving* into its place an atom of hydrogen from some other molecule whereby the product, hydro-chloric acid, results, if new and unobvious, would be patentable as a chemical method. Equally, would it appear that a method devised for moving portions of a conductor into position on an armature core, whereby the product, an armature member, results, is the proper subject-matter of patent protection if new and unobvious. The same reasoning would appear to apply to processes for producing other products—such, for instance, as the method of operating a machine to produce different rates of motion, for it would appear that the product of a process may equally well be a form of matter or of motion or energy in any commercial form. One reason why prejudice has always existed against the patentability of such processes is believed to lie in the fact that most processes of this type are old or clearly obvious and therefore lacking in invention, so that we come to think that, as a class, they possess some inherent quality which bars them from the pale of patent monopoly.

Electrical Methods.

The methods or processes commonly met with in electrical cases may be roughly classified as follows:

(1) Chemical—Such as those for producing brush or filament compositions and the like.

(2) Mechanical process whose product is an article of manufacture or a machine, e. g., squirted filament or armature structure (*in re Weston*, *supra*).

(3) Method of manipulating machines. The product may be motion or energy of some form, or an emf or the like; e. g., arrangement of motors in series and parallel for speed control.

(4) Method disclosed only in connection with a particular machine or system for automatically performing it, but claimed without reference to the particular means disclosed.

The first and second classes require no special discussion save to state that the *novelty*, *utility* and *obviousness* of these methods are the essential factors in determining their patentability.

The third and fourth classes are subjects of much difference of opinion and the practice as to the fourth class in particular can not be said to be settled.

(3) *Methods of manipulating machines* may be illustrated by the following claim:

> The method of regulating the speed of mechanism driven by a plurality of electric motors which consists in successively connecting the motors, in series, in series-parallel and in parallel to a source of electrical energy.

The product here is a regulated speed. Is the method a patentable one, or should the claim be in the form of apparatus? Since method must be prior in the order of conception to apparatus for performing it, and since given the conception of the above method the apparatus (switches and connections) for performing it would be obvious, if the inventor has taught *anything* that was not obvious before it must be the method. The method under these circumstances would certainly be patentable rather than the apparatus.

Moreover, an apparatus claim, in theory, should, it is thought, define the structure as it stands inert though its elements may be modified by limitation of *inherent adaptation*. It would therefore appear to be illogical for

such claim to state a sequence of operations which is not inherent in the mechanism but is subject to the will of the operator. There may be without question invention in a new and unobvious *machine for performing an old method*: likewise there may be, it would appear, invention in a new and unobvious method of operating an old machine. The sole test of each is *obviousness*.

(4) *The fourth class of methods above specified, namely, that disclosed in connection with only a single machine or system for automatically performing it*, has given rise to endless contention having been variously condemned as the expression of the mere function of the machine, the operative theory of the mechanism, etc.

In the discussion immediately following, the propriety of taking out separate patents for alleged inventions in method and apparatus, based upon the same identical disclosure, is not under consideration, but merely the form in which the invention may be properly expressed. The question of separate patents will be treated on pages 13 to 17 and 23 to 27, inclusive.

It is generally stated that a process to be patentable must be capable of being performed by any of several different mechanisms or by hand, it being held that if no other means than that disclosed can be conceived of for performing the process then it is unpatentable, as constituting the function or operative theory of the machine. The logic of this position is not apparent, for it would appear that if a method exists as a complete mental concept independent of the machine for performing it, it would be patentable under the statutes whether it can be performed by only one known mechanism or several. Its character as a method is unmodified by the limitations of means for performing it, it being sufficient, in logic at least, if the inventor disclose only a single practical means.

Moreover, if invention was required to provide the only known means for performing the method who can say that at some future date another machine may not be invented, capable of performing the same method, and in such case is the method to be transformed by that act from one that is *per se* unpatentable to one that is patentable? Is its inherent quality as a method altered

thereby? An answer in the negative is given by the Circuit Court of Appeals in *Century Electric Co. vs. Westinghouse Elec. & Mfg. Co.*, 191 F. R., 350; 1914 C. D., 267. The problem however, is naturally a difficult one for it arises out of the vortex produced by the convergence of method and mechanism for performing it. A consideration of certain fundamental concepts will aid in its solution.

It has been aptly said that the product or thing desired is first in the order of conception, the method of producing the product second, and lastly the means or mechanism for performing the method. The product is more often old or obvious and may usually be produced by many methods new or old, the method is less often old or obvious and usually may be performed by many machines, while least obvious usually are machines for performing methods.

To illustrate our discussion by a simple example, let us assume that at a period before electric motors were known the desirability of such machines for producing continuous rotary motion was recognized. The product, rotary motion, was notoriously old and many processes existed for producing it and also many machines for performing the several processes. Let us assume that the magnetic compass also was known and that an inventor in observing the fact that the magnetic needle always sought to turn from a position at right angles to the earth's magnetic field of force into a position in line therewith, conceived the idea that if it were possible to have a rotating body in which the line of its own magnetization would stay fixed in space at an angle to the main field of force, but could shift within the body itself as the body rotated, notwithstanding the tendency of the body to so rotate as to bring its line of magnetization into line with the field of force, then continuous rotary motion would be produced magnetically. He here has conceived a new method of producing continuous rotary motion, which may be expressed as follows:

> The method of effecting continuous rotary motion which consists in producing a magnetic flux in the direction of a line fixed in space, subjecting a rotatable member thereto, and main-

taining in said member regardless of its position in space a flux in a line displaced from the line of the first mentioned flux, whereby the fluxes react to produce continuous rotation of said member.

Before the method can be practiced or patented, however, our inventor must devise means for performing it. He now conceives the idea of employing for his rotary member, a wound armature provided with a commutator, and brushes fixed in space, bearing thereon, through which current to produce the magnetization of the rotary member is led from the outside. The position of the brushes gives him the line of magnetization in the rotatable member desired and enables him to perform his method. He has evolved the ordinary d. c. commutator motor and is entitled to claims therefor. Is he also entitled to claims for the method? Since at this stage no other means for performing the method is known or obvious, he would be barred if we apply the test that the method must be capable of being performed by other means or by hand. His claim would be said to cover the function or operative theory of his machine. However, his very revolutionary work in the art inspires others to devise other machines for performing the method he has taught them. The synchronous motor, the repulsion motor and even the single phase induction motor, may be assumed to have resulted. Clearly his method is not inherently different from what it was before and yet it now satisfies the condition that it can be performed by means other than the single means first disclosed and that it is capable of an existence in the practical arts apart from the latter means. In fact, that it was capable of such existence would seem an obvious conclusion from the original proposition that the invention of the method was prior in point of time to that of *any* means for performing it. It is believed that the method of our illustration should be patentable, if new and unobvious, even though a single means only was known for performing it. If claims to the method must be rejected, however, it is believed that the only logical ground would be that they are broader than the invention of practical means for performing the method, since

the inventor has disclosed only one means whereas his method claims dominate all means for its performance, but this would appear to be unfair to the pioneer who has opened the vista to a new art, and would, it is thought, be out of harmony with the Constitution, the Statutes and the leading decisions. In the words of the Supreme Court in the *Telephone Cases* (126 U. S., 1; 1888 C. D., 321), "other inventors may compete with him for the ways of giving effect to the discovery; but the new art he has found will belong to him and those claiming under him during the life of his patent."

But, it may be argued, would not a claim to a combination of means, each limited by function corresponding to the steps of the method respectively, amply protect the inventor and obviate argument in those cases where admittedly the method must be performed by a machine? Our illustration is believed to answer this question in the negative, for the broad apparatus claim based on the disclosures of the d. c. commutator motor would necessarily include means (corresponding to the brushes) for maintaining the flux in the rotatable member in a line displaced from that of the main flux, whereas the synchronous motor would reveal no corresponding means. It accomplishes this result by the inherent action of the machine as a whole when at substantial synchronism, and would therefore not be dominated by the means claim. This matter will be considered more at length in the subsequent discussion of the relation of function in apparatus claims to method.

A method of the type indicated which analysis shows must be conceived prior to the conception of apparatus for performing it should, in the opinion of the writer, be sharply distinguished, however, from certain types of methods, frequently met with, in which it is clear that the machine was prior in the order of conception and that the alleged method merely states the *obvious* and *intended* manner in which the machine was designed to be operated. Such method is believed to be illustrated by the following claim drawn on the same d. c. commutator motor as the former method claim:

> The method of effecting continuous rotary motion which consists in passing a current through

the field winding of a motor to produce a main field flux, subjecting an armature, provided with commutator and brushes, to said field flux and simultaneously passing a current through said brushes, commutator, and armature whereby current in the armature reacts with said field flux to produce rotary motion.

This method could have no existence until the motor upon which it was designed to operate was devised, and given the motor, the method is merely the obvious and intended way of operating it to perform our former method. Were it a new and unobvious way of operating an old machine, however, the claim might be patentable (see class 3, supra).

Illustrative Decisions.

A consideration of some of the more fundamental court and office decisions bearing on electrical methods will be illuminating.

First to claim our attention is the celebrated case of *O'Reilly vs. Morse*, 15 Howard, 62 (Supreme Ct.). Morse's eighth claim covered in substance the use of the electric current for marking intelligible characters at a distance, a result that many might, without the exercise of invention, have desired to accomplish prior to Morse's disclosure. The claim did not set forth any method of applying the electric current whereby the result could be accomplished. It did not set forth the invention. As stated by the court, the claim was clearly too broad and not warranted by law.

Next of special interest is the Supreme Court decision in the epoch-making *Telephone Cases*, cited above. The claim there under consideration reads as follows:

> The method of, an apparatus for, transmitting vocal or other sounds telegraphically, as herein described, by causing electrical undulations similar in form to the vibrations of the air accompanying the said vocal or other sounds, substantially as set forth.

This claim covers a subcombination of the complete method (if we ignore the reference to apparatus) of transferring speech to a distance, namely, the steps involved in its transmission. It does not cover the reverse method of receiving. The product is the transmission of sound. The method of producing it is stated, in substance, to consist in causing the vibrations of the air accompanying the sound to produce electrical undulations similar in form to the air vibrations and transmitting the electrical undulations to the point desired. The claim does not merely state the result that intelligence is transmitted by an electric current, as in the *Morse* case, but states the manner in which the electric current is modified to bring about the result. The court held that the claim covered a patentable method.

It is noteworthy that the court did not consider the method to cover merely the function of the machine or the operative theory of the mechanism.

Independence of Method and Apparatus.

We pass now to a closer consideration of the relationship that may exist between method and apparatus and in this connection the decision of the Supreme Court in *U. S. ex rel. Steinmetz vs. Allen, Commissioner of Patents*, 1904 C. D., 703, is of special interest. The question there involved was the propriety

Double Patenting.

of the requirement of division between claims to a method and other claims to the apparatus for performing it, certain of the claims of the respective groups (see particularly claims 6 and 10) being substantially the same in scope though drawn to different statutory classes of invention. The court said:

"Can it be said that a process and an apparatus are inevitably so independent as never to be 'connected in their design and operation'? They may be completely independent. (*Cochrane vs. Deener*, C. D., 1872, 242; 11 O. G., 687; 94 U. S., 780.) But they may be related. They may approach each other so nearly that it will be difficult to distinguish the process from the function of the apparatus. In such case the apparatus would

be the dominant thing. But the dominance may be reversed and the process carry the exclusive right, no matter what apparatus may be devised to perform it."

A similar situation was presented in *ex parte Creveling*, 1904 C. D., 353, and *in re Creveling*, 1905 C. D., 684; 25 App. D. C., 530, the former being the Commissioner's decision and the latter that of the Court of Appeals of the District of Columbia in the same case. Creveling had taken out an apparatus patent for a system of electrical regulation and thereafter sought to obtain a patent for the alleged method performed by that apparatus. Claim 1 of the application and claim 12 of the patent read respectively as follows:

> 1. The herein-described method of regulating a generator which consists in creating an independently determined magnetomotive force, and creating an opposing magnetomotive force which is a function of the current generated and thus producing a resultant magnetic field whose polarity is dependent upon the current generated, exposing to the influence of the above-named resultant magnetic field, a member tending to set up an independent magnetic field, producing motion in a positive or negative direction depending upon the polarity of the resultant magnetic field and by said motion in one direction, increasing the output of the generator and in the other direction, decreasing the said output.
>
> 12. In a system of distribution, means regulating a generator, comprehending means creating an independently determined magnetomotive force, means creating an opposing magnetomotive force which is a function of the current generated and thus producing a resultant magnetic field whose polarity is dependent upon the current generated, means exposed to the influence of the above-named resultant magnetic field tending to set up an independent magnetic field, producing motion in a positive or negative direction dependent upon the polarity of the resultant magnetic

> field and means whereby said motion in one direction increases the output of the generator and in the other direction decreases the said output.

The method claims were refused by the Office on the ground that they did not cover a true process but covered the mere function of the machine as disclosed in the patent, and the decision from which appeal was taken to the court contained an exceedingly clear statement of that view of the case. It is a significant fact, however, that the court did not adopt the same view but after pointing out that the claims were incomplete, made the following comment:

> "It has not been shown that there is any difference in the inventive concept underlying the present disclosure and that of his prior patent and, on the contrary, the reverse appears to be the case. Accordingly, even if we were justified in disregarding the character of the claims presented and referring to the invention itself, as disclosed, in determining the patentability thereof, we should be constrained to hold that the issuance of a patent upon the present application would be, in effect, a grant to the applicant of the same extent as that of his prior patent and the final disposal of the case would not be affected."

It thus appears that in the opinion of the court the case turned upon the question of "double patenting."

The same view in regard to method and apparatus claims of this character has been repeatedly taken by the Board of Examiners-in-Chief. In *ex parte Sieberman*, Patent No. 1,101,214, the invention claimed was the method of speed control of a plurality of electric motors (Class 3, *supra*). The Board said:

> "If the two claims (method and apparatus) were presented in different applications, we would agree with the Primary Examiner to the extent of holding that both should not be allowed. In view of the fact that both claims are presented

in a single application, and in view of the fact that the determination whether a given inventive idea resides in the process or in the apparatus in such cases as this is largely a matter of individual opinion, and at the same time is something which is of no practical importance to the public, we believe the process claim should not be rejected merely because of its process form."

Reissue to Avoid Double Patenting.

In the proceedings that led to the grant of the *Thomas* reissue Patent No. 13906, where, four years prior to the decision on appeal, an apparatus patent had issued for a mercury vapor rectifier after a requirement of division by the Office, it was held that claims to the method performed by that apparatus could only be obtained in a reissue. The Board said:

> "We believe that the appealed claims might properly have been taken in that (apparatus) patent as broader statements in different form of the same fundamental invention that is set forth by the apparatus claims thereof. And in view of the fact that the applicant sought to take such claims in his patent and has persisted in his right to this broader protection from a time prior to the issue of his patent, it would seem that he is entitled to a reissue."

A different conclusion as to the independence of apparatus and method claims to an induction motor, in certain Tesla patents, was reached by the court in the case of *Century Electric Co. vs. Westinghouse*, *supra*, wherein it was held that both apparatus and method claims were valid though in different patents issued on different dates (see, also, earlier decisions on same patents cited therein); but the holding in this case is not irreconcilable with the views expressed in the foregoing decisions. The court held that the Tesla applications "were the applications of a pioneer in the art who had discovered a new process and a new apparatus." Moreover, it pointed out that the claims had been divided in

response to a requirement by the office in accordance with an unyielding rule of practice (a clause in old rule 41) requiring that machines and processes in the performance of which the machines were used, be presented in separate applications. This clause, as the court points out, was held void in *Steinmetz vs. Allen*, *supra*, but in the opinion of the court the contractual relation entered into by the public and the inventor while the rule was in force, resulting in the grant of separate patents, was binding upon the parties thereto.

To summarize, it would appear:

First, *that methods disclosed in connection with only a single machine for automatically performing them may nevertheless in proper cases be patentable.*

Second, *that method and apparatus claims of this character should be presented in the same application.*

The question naturally suggests itself, can both method claims and broad apparatus claims of substantially the same scope be logically patentable even if presented in the same application? Until practice has become more settled it is believed, as indicated in the decisions cited, that both groups of claims should be allowed if presented in the same case, but the question as to the propriety of the two forms will be further considered in connection with claim structure and the relation of functional limitations in apparatus claims to method.

CLAIM STRUCTURE — DOCTRINE OF EQUIVALENTS IN ITS RELATION TO FUNCTION AND METHOD.

The patent claim is charged by statute with the duty of declaring the *invention* (R. S., 4888) and it is guilty of malfeasance in office if it declares more or less than the actual invention. If guilty of this charge it can be saved, if at all, only by benevolence of judicial construction, but however commendable judicial construction may be it is far fairer to the public and safer for the inventor to make certain his rights than to throw himself upon the mercy of the court. The claim structure is therefore of vital importance to the protection of invention.

Let us assume a stage of civilization when box-like containers were unknown; that some prehistoric genius

of whom no record remains, conceives the idea of transporting a number of small articles, such as potatoes and beans, by gathering them together and surrounding them with strips of bark to form a container the sides of which he held together with his arms and hands. If one could appreciate the degree of invention required at this stage of the art in conceiving this labor saving expedient he might concede that the inventor was entitled to a claim as follows:

> 1. The method of assembling small articles which consists in surrounding them by sides of flat material and retaining said sides in fixed relation to each other.

Our inventor, not content to do so much holding, further conceives the idea of binding together the parts of his structure with twisted ropes of grass. He is now entitled, say, to a claim as follows:

> 2. A container comprising sides and a bottom and means for permanently holding the same together.

Our prehistoric Edison next conceives the idea of making the joints more rigid by the use of nails or similar devices, and since the parts of his structure have a new, and before the event, unobvious cooperative relationship with each other, he would appear to be entitled to the following claim:

> 3. A structure comprising separate portions placed edge to edge and securing means passing through one portion and embedded in the other.

He would also be entitled to claims for the specific form of securing means *per se*.

Unpatentable Combinations, Doctrine of Equivalents a Test of.

As the art develops under the impetus he has given it, other fastening means such as screws, bolts and the like are devised, but in each case the *inventive act* is completed before the particular fastening means is associated with the parts which it is designed to hold together and since the old relationship of parts as set out in claim 3 teaches how to use the new fastening means, no further

inventive act resides in substituting it for the old means in the combination. He has improved a part not the entire machine. It follows that the new fastening means should be claimed *per se* and not in combination.

Were our illustrious inventor now to file an application in the United States Patent Office disclosing the preferred form of his box-like structure as held together by nails, he might be held to be entitled to claims 1, 2, and 3, and also several claims, say, defining his nail *per se*. This would appear to cover substantially the whole range of his advance in the arts. There would be nothing added to the scope of his protection were the aboriginal Blackstone who prepared the case to assert claims to the securing means, as stated in claim 2, in combination with the side and end, side and bottom, and end and bottom respectively; then a similar group defining his securing means as limited in claim 3; then other similar groups defining the nail in combination in more specific language. Likewise by specifying successively, with the other limitations, that the sides were flat, of fibrous material, and wood, the claims would be multiplied indefinitely. Such practice would secure the inventor no additional protection and would only obscure his real invention. Indeed, in his zeal not to overlook all possible permutations he would likely fail to assert claims 1, 2, and 3, and claims to the nail *per se*, so that even if his claims should be upheld by beneficent construction of the courts the scope of his protection would be limited to the use of his nail in combination with a box structure, and would not extend to its use in all other relations, as it would had he made appropriate subcombination claims to the nail *per se*.

In the opinion of the writer too few claims of the broader combination type, as 1, 2, and 3, supra, and particularly of the subcombination type, are allowed in our practice and far too many of the intermediate type involving conglomerations of elements and immaterial limitations in an attempt to cover all equivalents and uses. The latter practice works to the injury of the applicant for where he follows it the courts will apply the doctrine of equivalents with less liberality to his case.

The foregoing homely illustrations demonstrate the

value of the doctrine of equivalents as a test to determine the extent to which specific limitations of an element or subcombination should enter into a combination claim. From these considerations it would appear that the features or characteristics of an element or subcombination should never be more specifically set forth in the combination than they *actually cooperate in some new and nobelous manner* with the remaining elements of that combination. This is true because a claim alleges that invention was involved in associating each element thereof, in the particular form and manner specified, with its other elements. Therefor, if any part of this allegation can be successfully challenged the claim is unpatentable because it fails to express invention—an unpatentable combination.

We thus have exemplified the principle of "old combination" and the law of "equivalents," which while simple in the stating are the source of more vexation to the Office and applicant alike, perhaps, than any other phase of patent practice. The proper application of these principles is believed to be necessary to the adequate protection of patent property and is the obvious remedy against the increasing complexity of our patent system.

Function and the Doctrine of Equivalents.

Our illustrations, moreover, teach us, what the writer believes has not been sufficiently emphasized in patent practice, that the much maligned functional limitation has an indispensable duty to perform in claim structure, namely, *to cover the range of equivalents of an element or subcombination in its relation to the combination, both in cases where it would also be proper to include such element or subcombination specifically and in cases where it would not.*

Broad vs. Specific Function.

Now, if we compare the functionally limited element of claim 2, namely, "means for permanently holding the same (sides and bottom) together," with the functionally limited element of claim 3, namely, "securing means passing through one portion and embedded in the other," we observe that while they are corresponding elements of the same general combination the latter

covers a more specific range of equivalents than the former, i. e., it covers only such securing means as actually pass through one member and are embedded in the other. Although the more specific functional limitation would not be permissible were it merely the equivalent in the combination of the broader means (unpatentable combination), in the particular case under consideration it is permissible because it sets up a new and unobvious relationship of parts.

So-called Functional Claims.

We see, therefore, that claims to combinations may be patentable even though they differ only as to the breadth of the functional limitation of an element, just as they may differ as to the particularity with which an element or subcombination is structurally defined. For structurally defined and functionally defined elements do not differ in kind but merely in scope, each in its varying degrees of specificness occupying continuous portions of a scale from the most specific to the broadest statement of the element, and one merging by imperceptible degrees into the other. The rule governing the propriety of one character of limitation in a combination claim, it would appear, should not be different from that governing the propriety of the other. In each case the combination is patentable to the extent that there exists a new and unobvious cooperative relationship between the several elements as limited, for a combination claim *does not assert invention in any of its elements but merely in the cooperative relationship set up between them.* (*Pieper vs. S. S. White Dental Mfg. Co.*, 228 F.R., 301; 1915 C. D., 297; 218 O. G., 349; *Underwood vs. Gerber*, 1893 C. D.; 340 U. S., Sup. Ct.). This fact appears to have been ignored in the treatment of the so-called functional claim. *Whether, then, an element or subcombination, structurally or functionally defined, is new or old, we may, for the purpose of the combination, treat it as old.* It would accordingly appear that the functional limitation of an element of a combination claim in no case constitutes a strictly logical ground for rejecting it as functional. If the claim is unpatentable, as many such are, it is because of *the lack of a new and unobvious cooperative relationship* between the element

as limited by *specific* function, and the remaining elements of the claim—an unpatentable combination, as in the case of too specifically limited structural elements of combination claims.

The application of this theory to cases for a number of years convinces the writer of its sufficiency.

Illustration.—The claim in *in re Gardner*, 32 App. D. C., 249; 1909 C. D., 306, to a suitably inscribed dial in combination with a device for automatically indicating thereon simultaneous pressures and heat characteristics for super-heated vapor, asserts invention in associating a dial with an active element of particular description. In accordance with our theory the claim would be rejected for the reason that it is customary to provide active elements of measuring instruments of every description with appropriate indicating dials, as illustrated in references cited, and since no new and unobvious cooperative relationship between the dial and active element was set up, the claim failed to define an inventive act (unpatentable combination). Attention would also be called to the fact that should reference to the dial be canceled in an attempt to overcome the rejection on this ground, the claim would reduce to one covering *all devices* for automatically indicating simultaneous pressure and heat characteristics for superheated vapor and would for this reason be subject to rejection under *O'Reilly vs. Morse*, *supra*, and *ex parte Bullock*, 1907 C. D., 93.

Where the broad combination is indisputably old, as in the Gardner case, and it appears that the applicant is relying upon invention in the element functionally limited without regard to any new cooperative relationship it bears to the other elements, the claim might be rejected in the first instance on the ground that while in the form of a combination it, in effect, covers *all means* for producing the result stated. Such treatment, while often convenient and effective, is not strictly in harmony with the rule that a combination claim asserts no invention in any of its elements and that no element of a claim can be disregarded. It, moreover, becomes unwieldy and unreliable in dealing with claims having a larger number of elements, as, for instance, those under consideration

in *ex parte Pacholder*, 1890 C. D., 55, and in such cases the advantage of the former treatment becomes readily apparent.

It is often stated that if invention resides in the functionally limited element, or if the latter is a primary as distinguished from an adjunctive element then the function renders the claim unpatentable, but since a combination asserts no novelty for any of its elements but only for their cooperative relationship, no reason appears for taking a different standard of test for one element from that taken for another. To do so would penalize the pioneer inventor who must invent not only the combination but also the subcombinations and elements that go to make it up, for had he found the latter and their equivalents already in the art this ground of rejection would not have been urged against his combination claims.

Again, it would appear that such expressions as "constructed and arranged," "adapted," and the like, whatever other objections may be made to them, can not properly be held to be badges of objectionable functionality.

It is the writer's opinion that rejections on the broad ground of functionality, as well as those on the grounds of aggregation, unpatentable combination and the like, should give place to a particular analysis of the claim and a statement of specific reasons why it is believed that the claim fails to point out an inventive act. While the terms aggregation, unpatentable combination and the like are believed to be proper and useful in crystallizing the reasons for the rejection, they should never be permitted to usurp the office of the latter.

Function vs. Method.

It often occurs, particularly in electrical cases, that a combination may not necessarily be concerned with the specific construction of *any* of its elements but merely with the range of equivalents of each and therefore each element would be defined as means for performing its peculiar function or result in the combination. Claims of this character have been previously noted in connection with the *Steinmetz*, *Creveling* and similar cases. Such a claim declares that it is immaterial what partic-

ular means among many equivalents is employed in the performance of each stated function or result, nor does the claim set up any cooperative relationship between the several means save the relationship between the results produced. But this is exactly the characteristic of a method, namely, that it is concerned with the sequence of acts or steps performed, rather than with the particular means whereby they are effected. So far as the claim in its apparatus form is concerned it would in effect be a claim for all mechanisms having the stated number of means for performing the method. There is no invention, broadly, in the mere abstract number of means employed in performing a method and one may not claim all means for performing it. He may dominate (not claim) all means only if he has invented a method performed by them all. To repeat the words of the court in the *Telephone Cases, supra*—

> "Others may compete with him for ways (mechanisms) of giving effect to the discovery; but the new art (method) he has found will belong to him and those claiming under him during the life of his patent."

Since, in our assumed claim no invention in particular mechanism is set up it would appear that the invention is more properly expressed as a method than as apparatus.

Method in Apparatus Claims. Double Patenting.

Pursuing our analysis further, since an element functionally limited is not concerned with the particular means employed for performing the function or result stated, but dominates all means (equivalents) for performing it—and accordingly is in effect the equivalent of a step in a method, so an apparatus claim involving one or more elements, functionally limited, partakes both of the nature of method and apparatus. Accordingly these two statutory classes merge into each other by imperceptible steps and like the ancient problem as to when the addition of grains of sand to a nucleus makes it a pile, it is sometimes difficult to determine where one ends and the other begins. While our former example of

the method which, first conceived, led to the subsequent invention of motors of several different types, would illustrate the fact that method and apparatus are, or may be, independent concepts, nevertheless the difference is one of scope or breadth, as is most apparent in considering the all-means claim as the common factor between method and apparatus; and it is usually held by the decisions bearing on double patenting that claims that differ in scope only, can not sustain different patents. Particularly is this true where the method and apparatus are predicated upon the disclosure of a single instrumentality. Under the present interpretation of the patent law, therefore, as heretofore noted, it would appear unwise to seek protection of method and apparatus of this character in separate patents. Where, however, the method is taught to be performable by other known means or by hand, necessity for joinder is not apparent.

This practice is believed to be founded in justice and reason, for one is not entitled to a patent for his method, nor indeed is his method complete, until he has taught how to practice it. In return for both of these a monopoly of 17 years is granted. Now if applicant has disclosed only one means or mechanism for performing the method, and no other way to perform the method is obvious, to grant a separate monopoly for an additional period on that mechanism, assuming it also to be patentable, would be in effect to deprive the public of the free use of the complete method after the patent thereon had expired. This would be contrary to public policy and subversive of the plain intent of the statutes.

Analogy to Genus and Species Claims in Apparatus Cases.

There is believed to be a close analogy in the case of genus and species in apparatus cases. If an inventor discloses only a single species, his broad claims to the genus must be made in the same application with claims limited to that particular species, notwithstanding that as a mental concept the genus is not dependent upon that species but might be predicated upon other species as well. His broad expression of invention contained in claims to the genus is, however, not complete or patentable until he has taught some way of giving effect thereto. When he

discloses only a single species he has given to the public only *one complete invention, one practical means*, of all those dominated by the broad claims, for practicing the latter. He is accordingly entitled to one monopoly only for genus and species. Otherwise when the patent containing his genus claims had expired, the public would be unable freely to practice according to the teachings of these claims because of the continuing monopoly on the only known means for giving them effect. Moreover, the principle would not appear to be different where several patentable species were disclosed, for if the monopoly on at least one species is not released when the patent containing the genus claims expires, the public will be in possession of no known means for freely practicing the patent.

It would appear to follow that both in the case of genus claims to apparatus and claims to a method for the performance of which particular mechanism is essential, there must be the surrender of at least one disclosed means for giving them effect, coincident with the expiration of the patents covering them. Other disclosed means may, of course, properly constitute the subject-matter of separate patents.

Apparatus in Method Claims.

Method claims containing limitations to apparatus for performing one or more of their steps are occasionally met with. Frequently such claims are objected to on the broad ground that it is improper to limit a method claim by reference to apparatus. While a method is usually independent of any particular means for performing it, it is not believed that this need always be the case. The true test of the propriety of such limitation is thought to be—is the apparatus as defined essential to the performance of a step or steps of the method, does it bear a necessary cooperative relationship thereto. If it is not essential (or does not bear such relationship) then its inclusion is improper for the same reason that the inclusion of a specific subcombination in an apparatus claim is improper where such subcombination bears no new cooperative relationship to the other elements of the combination—that is, it is immaterial to the invention.

It is believed that in many cases in the past where only a single embodiment of the invention was disclosed, an unduly sharp line has been drawn between method and apparatus, due possibly to the influence of their separate classification by the statutes, and as a result, patents and claims have each been unduly multiplied. The spirit of the invention was lost in the controversy as to the form in which it should be expressed. The courts are believed to be justified in exercising a certain degree of liberality in such cases, as in the *Century* case, *supra*. Where, however, separate patents for method and apparatus, based on the same disclosure, are taken out, the careful attorney will see to it that both are granted on the same date.

Merit of German Claim and of Our Function and Method.

There is believed to be much merit in the German type of claim which first gives the structural setting for the invention and straightway jumps to the very essence of the inventive act usually by functional statement, avoiding the repetition of the real invention in its multitudinous relations to all the incidental parts and features by accident associated therewith, which usually fall well within the realm of mechanical skill. It is for a similar reason that the writer would emphasize the value of functional limitations and the method form of claims in our practice. For, while the apparatus is the material body of invention, method is its soul.

We may summarize the conclusions deduced from our consideration of claims, as follows:

(1) The mere substitution of an element or subcombination whether it be new or old, or, structurally or functionally defined, for its recognized *obvious* equivalent, in an old combination is not patentable (unpatentable combination).

(2) If the elements or subcombinations, structurally or functionally defined, bear a new and *unobvious* cooperative relationship to each other, the combination is patentable.

(3) If the substitution of an element or subcombination, structurally or functionally defined, for another, in an old combination produces a new

and *unobvious* result, whether or not it also produces the known result, the combination is patentable.

(4) Where the sole invention resides in the subcombination it should not be claimed in combination.

(5) Functionally limited elements in combination are subject to the same rules of patentability as structurally limited elements.

(6) A claim consisting of a plurality of means functionally limited is not substantially different from a method claim involving steps corresponding to the functional limitations.

(7) Method and apparatus claims based on the disclosure of a single instrumentality should be presented in the same case.

(8) Reference to apparatus in method claims is objectionable where not essential to the performance of a step or steps of the method.

Unobvious Substitution of Equivalents.

As a corollary to the first rule it would appear that if the substitution of an element for its equivalent (as appears after the event) in an old combination was *not obvious* before the substitution was made, as where the substituted element was borrowed from a non-analogous or remote art, or if, in the combination, it possesses an advantage even only in degree and not in kind which might have been expected had the element been particularly considered, yet one which it had not occurred to any one to avail himself of, though possibly turning an impractical device into a practical one or failure into success, then such substitution may be patentable (*Miehle Printing Press & Mfg. Co. vs. Whitlock Printing Press Co.*, 223 F. R., 647; 1915 C. D., 284; 218 O. G., 1155).

Some may dispute this view but in the writer's opinion patentable cases of the character indicated occasionally arise, and it is believed that no rule of practice should be permitted to deny protection to one who has performed an inventive act, the final test of which is believed to be—*was the thing he did or the particular advantages flowing*

therefrom unobvious to those skilled in the art before he did it.

For invention is a mental act, not a physical one. There is no yardstick by which it can be measured. It can only be determined by a comparison of what was actually done, with what might have been expected of one skilled in the art before the suggestion was made. Opinion as to invention in a particular case will vary with the technical ability and experience of each individual as well as with his judicial capacity. In order to place the judicial tribunals as nearly as possible in the position of the expert it is particularly desirable to give as full and complete citation of the art as possible in so far as it relates to the case in hand.

Invention in Idea.

Invention frequently resides rather in the *idea* that the changes over the prior art can be *advantageously* made than in the actual making of them, the necessary alterations of former devices often being obvious after the suggestion of the idea (*Hobbs vs. Beach*, 180 U. S., 383; 1901 C. D., 311; *Miehle Printing Press Mfg. Co. vs. Whitlock, supra*). It is of course only the practical device embodying the *inventive idea* which is patentable, since an abstract idea is not.

An invention may be likened to a cut-up picture puzzle. It is much more obvious how to put the parts together after we are given a picture of the result than it is before. So in combining references it would appear that ordinarily the test of anticipation should not be—could an expert after seeing the invention, and without invention on his own part, assemble the parts of certain specially selected references in the manner taught by the invention undergoing test, but rather, *would the expert without knowledge of the invention and without exercise of invention be led to make the selection of the particular references from the entire art and combine them in the manner of the invention, were there need of such device.* The general rule that the inventive idea of the whole combination should "ordinarily" be disclosed in a single reference is well stated in *ex parte McCollum*, 1914 C. D., 70; 204 O. G., 1346. It is perfectly conceivable, however, that a new combination may not mark a sufficient advance

over the suggestions contained in a plurality of devices in the prior art to rise to the dignity of invention, even though no single reference discloses the whole combination. Such cases nevertheless are believed to be rare.

Next to a requirement for division a rejection is the easiest action to give, and a well advised-allowance, the hardest. Nothing is more hurtful to the cause of good practice than the wrongful and ill-advised application of principles. In rejecting claims whether on references or on some more technical ground we must be careful to avoid the error of reasoning illustrated in the old conundrum, "Why is a rotten potato like a beehive?", the answer being, "A rotten potato is a speeked tater, a spectator is a beholder, and a bee-holder is a bee-hive." Such may be aptly termed "rotten potato reasoning." The rule is the means, not the end. The application of no rule should be permitted to deprive an inventor of the fruits of a meritorious invention; but rather had we heed the wisdom of Uncle Rastus, who said, "You can lay down no fixed rule of conduct in this life. Sampson got killed because he had his hair cut, and Absalom got killed because he didn't."

While the rule properly construed may not be wrong, we may be wrong in our application of it, for it is easier to state rules and principles than to know whether or not they apply to a particular case in hand.

In connection with our general discussion of rules governing the construction of claims, certain illustrative decisions in electrical cases are of interest.

Degree Patentable Where New Result.

In the celebrated Stanley transformer case (*Westinghouse Co. vs. Montgomery*, 153 F. R., 890; 156 F. R., 582, and other decisions therein cited) it was held that the essence of the invention was the length of wire in the primary coil, that it was not necessary or possible to state that length in feet or inches and that admitting that Zipernowski and Deri had invented a transformer involving the same length of primary wire, their failure to disclose the fact that the regulation of this length was the simple method of obtaining the result desired voided their work as an anticipation. To avail himself of the benefit of such

invention, however, it was pointed out that the disclosure by an applicant must be so full and complete as to enable the invention to be readily practiced by those skilled in the art.

D. C. Apparatus Used on A. C.

It is generally true that it involves no invention to adapt direct current apparatus for use on alternating current, since such adaptation involves only well-known matters of design and engineering knowledge. But in the case of *Pieper vs. S. S. White Dental Mfg. Co., supra*, it was held that where a system of motor control was old in the d. c. art but the teaching of the prior art pointed away from the use of motors having the particular characteristics of construction involved therein, because of inefficiency, there was invention in adapting such system for operation on alternating current in which use it supplied a long-felt want in a manner which before had not been obvious.

Wire and Carbon Pile Rheostats Equivalents.

In the *Safety Car Heating & Lighting Co. vs. U. S. Light & Heating Co.*, 222 F. R., 320, the equivalence of wire rheostats and carbon pile rheostats in car lighting systems is recognized in view of their established equivalency in other relations, notwithstanding advantages possessed by the carbon pile in car lighting systems.

Subcombination Not Protected by Combination Claims.

The importance of the subcombination claim as a means of obtaining maximum protection commensurate with the scope of the invention and the fact that such protection may be lost by asserting only combination claims or by including non-essential elements is well illustrated in the case of *Bullock Electric & Mfg. Co. vs. Westinghouse*, 129 F. R., 105, involving the Tesla patents Nos. 381,968, 382,279, and 382,280. The first two patents claimed an induction motor of novel construction in combination with an appropriate source of supply, while the last patent covered the method of transmitting power, performed by the motor. Notwithstanding that it held three

patents designed to cover the invention, the assignee of these patents was precluded from holding as an infringer one who manufactured the motor and shipped it for use abroad, for the latter was held to infringe neither the combination claims to a system including the motor and a source of supply which he did not manufacture in its entirety, nor the method claimed, which he did not perform. The court said:

"It may be true as claimed that the Tesla motor constitutes the real essence of the three Tesla inventions covered by the claims of the patents in point. Tesla, however, neglected to claim the motor as a separate device. He deliberately elected to claim it only as he claimed the other elements of his combination claimed and thereby abandoned any claim to its novelty or to a monopoly of its use except as a part of one or other of his combination claims."

Instances could be multiplied indefinitely of cases where the applicant had failed to see or to protect his real invention though asserting a multiplicity of applications and claims to a varied assortment of alleged combinations of elements which he had disclosed. In a recent case an applicant presented claims to a variety of alleged combinations and subcombinations of elements, each to a great extent incomplete and incapable of producing any unitary result, but all associated with the supply line, until his claims resembled a clothes line with the family wash hung on it. Indeed, they did not possess all of the cooperative features of the latter.

We who are employed within the Office are too seldom brought face to face with the evil effects in the commercial world and in litigation of poorly drafted claims, effects which have been forcefully pointed out in these talks by such able and experienced gentlemen as Judge Denison, Mr. Fish, Mr. Church, and the late Mr. McGill. It is true that the Office has occasion to observe the evil effects of such claims in a few of the cases in interference and classification work, but that is subsequent to the allowance of the case and such cases do not there-

after ordinarily come to the attention of the examiner who passed upon them. It is believed that a wide field of opportunity is open here for a closer cooperation between the attorney and the examiner, with the one end in view to secure better protection for patent property. This may to some extent be brought about by the discussion of particular cases by the applicant and the attorney, but it would appear that more far-reaching results might be accomplished by full and free discussions between attorneys and examiners meeting on the same terms with the interests of no particular case at stake.

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NEW USES OF OLD INVENTIONS

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BY

SOLON J. BOUGHTON,

Second Assistant Examiner, Division Twenty-seven,
U. S. Patent Office

WASHINGTON, D. C.
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THE LAW REPORTER PRINTING COMPANY, 518 FIFTH ST. N. W., WASHINGTON, D. C.

New Uses of Old Inventions

By

SOLON J. BOUGHTON,

Second Assistant Examiner, Division Twenty-seven,
U. S. Patent Office.

In many instances an invention has uses other than that which was in the mind of the inventor at the time of the completion of his invention and for which it was designed. Such new uses may or may not be the subjects of patents, depending upon whether or not their discovery called into play the inventive faculty.

In order to prevent confusion of terms we will settle upon a meaning for the words "new use." It is convenient to consider them as meaning use under new conditions or upon a new object of a known invention absolutely without change therein or else with such changes merely as might occur to the average person skilled in the art in which the new use is found. It will be apparent that if in adapting the invention to a different purpose further changes in the invention are made, that is, changes involving inventive genius, then the old art or instrument disappears and a new one is substituted, so that *no* use of the old invention is in question. This, then, excludes from our definition of new use any use in which the old invention is materially, that is to say patentably, changed.

New uses may be either analogous or non-analogous. The former are mere imitations of the use intended by the inventor of the art or instrument itself. They are double uses, and never involve invention. Non-analogous uses are those in which a new function, mode of operation, or result is brought about. Such uses result only from invention or discovery in the sense of the patent law. Robinson in his work on Patents states that a new use, meaning a patentable new use and therefore a non-

analogous use, "exists when a known invention is applied in a known manner to an object not heretofore known to be susceptible to such application from its analogy to other objects, but whose susceptibility has been discovered by the inventor of the use."

It is sometimes said that the nearness to or remoteness of the new art to which a thing is transposed from the old art in which it originally existed is important in deciding the question of invention, but it is submitted that the real test is whether the functions of the thing in its two uses are analogous or non-analogous rather than whether the arts in which the two uses are found are analogous or not.

The new use of a known invention frequently must be protected, if at all, by a patent in a different statutory class from that of the original invention. For instance, a new use of a machine, manufacture or composition of matter may constitute a step in a new process or method; and an old machine or process may be used to make a new product for which a patent application may be made. There are also other new uses which fall within the same statutory class as the original invention. For example, a known invention in any one of the statutory classes may be united with other elements to constitute a true combination; and a novel element, not theretofore separated from its use in a combination, may when employed by itself be the subject of an invention. These latter cases are extremely common in machine applications, machines being composed usually of old elements used in a new way by being brought into new relations with other parts.

The fact that the workmen in the art in which a device was first used do not ordinarily have anything to do with the art to which the device is transposed by the new use will not make the second use an invention rather than a double use. See Rogers *vs.* Fitch, 81 F. R., 959, in which the complainants in an infringement suit sought to eliminate an anticipating patent from the case by the suggestion that the workmen who make mattresses for beds do not make seats for railroad cars.

It is perhaps superfluous to state that no new use of a thing can patentably affect the thing itself. A machine

used in a new way, without any essential change in its structure, is not a new machine.

With this short statement of the theory and principles of double use and non-analogous use, we will proceed to a consideration of some of the leading decisions upon the subject.

NEW USE OF OLD ART OR PROCESS.

An English case, known as the "spent madder case," is one of the most frequently quoted cases falling under this head. Prior to the issuance of the plaintiff's patent garancine had been obtained from fresh madder by the application of sulphuric acid and hot water or steam. The plaintiff discovered that the same process could be employed in obtaining further garancine from spent madder, which rendered the latter valuable whereas before it had been worthless. The appellate court held that whether the spent madder was the same as fresh madder except in the quantity of garancine contained or whether it was different chemically from fresh madder was the question of fact that should have been submitted to the jury, and this appears to mean that if the spent madder did possess different chemical properties and was really a different substance from fresh madder, the new use of the process was more than a mere double use. One of the judges aptly illustrated the point by saying that it was just as if the discovery had been made that, by applying to potatoes the process used for obtaining garacine from madder, a valuable coloring matter could be obtained. Steiner v. Heald, 6 Eng. Law & Eq. R., 536.

In Brown v. Piper, 10 O. G., 417, a Supreme Court case, the patent alleged to be infringed was for a process of preserving fish, etc., "in a close chamber by means of a freezing mixture having no contact with the atmosphere of the preserving chamber, substantially as set forth." The court held the patent invalid in view of the ordinary ice cream freezer, saying that it involved "simply the application by the patent of an old process to a new subject, without any exercise of the inventive faculty, and without the development of any idea which can be deemed new or original in the sense of the patent

law. The thing was within the circle of what was well known before and belonged to the public. No one could lawfully appropriate it to himself, and exclude others from using it in any usual way for any purpose to which it may be desired to apply it."

A method of making imitation onyx by superposing different colored layers of celluloid and cutting the hardened mass across the layers, was held to be anticipated by a similar method of manufacturing imitation marble from cement. Arlington Manufacturing Company v. Celluloid Company, 97 F. R., 91.

Another Supreme Court case, Lovell Manufacturing Company *vs.* Cary, 62 O. G., 1821, held that a process of tempering steel bed springs was a mere double use of the same process for tempering hair springs of clocks and wire bells for clocks.

In Howe *vs.* Abbott, 2 Story, 191, the application of an old process of twisting, curling, baking and steaming hair for mattresses, cushions, etc., to use in treating strips of palm leaf for the same purpose was held not patentable.

Doing a thing by machinery which was theretofore done with a hand tool does not make a new method. Pennsylvania, etc., Mfg. Co. *vs.* Conroy, 159 F. R., 943.

NEW USE OF OLD MACHINE.

A really new use of an old machine, unmodified, even though inventive genius was brought into play in discovering that use will not support a patent for the machine itself, because the machine is either already the property of the public or will be after the expiration of the patent protecting it. If the new use of the old machine produces a new product the invention may be protected by a patent for the product. Otherwise the proper and only way to cover such an invention is by a claim for the process or method in which the new use of the old machine constitutes a step. See the opinion of Judge Taft in Stearns & Co. *vs.* Russell, 84 O. G., 1434, in which the application of a device designed for lifting sheets of paper by exhausting the air in hollow points of fingers in contact with the paper to the lifting and holding of pills while dipping them in a gelatine bath was con-

sidered to be a mere analogous use, no substantial change in the device being necessary. The court said: "Where it requires substantially no change in the old device to adapt it to the new use, such adaptation can not be the subject of a patent, no matter how remote and unthought of the new use may be, provided no new force or mode of application be necessary in carrying on such use. Otherwise, in case the device has been patented, the right of monopoly of the prior patentee is invaded by excluding him from a use of a machine which by the rule stated and the authorities cited above he is entitled exclusively to enjoy. If, however, the adaptation of the old machine to the new use involved a change in its form or operation, it may by the changes and very newness of the use or function become either a new machine or an improvement on the old machine and be patentable as such, or the new use of the old machine may result in a product which is itself patentable, or the use may be a step in a new and patentable process."

A familiar case in this statutory class of invention is that of Potts *vs.* Creager, 70 O. G., 494, a Supreme Court case. Potts sued Creager et al. for infringement on a patent on a machine for disintegrating clay, which consisted of a cylinder having therein longitudinal grooves in which were mounted cutting bars, means for supporting the clay in contact with the cylinder and means for positively feeding the clay into the machine. The defendant sought to show that the patent was invalid on account of anticipation, citing many patents from numerous arts, of which the court considered only one sufficiently close in structure to call for much consideration, and that was a machine for finishing and polishing wood in which the construction of the cylinder was the same as Pott's cylinder except for the fact that the cutters were glass instead of steel. The purposes of the two machines, however, were totally different and the effect upon the material worked upon was totally different, which was indicated by the fact that in Pott's machine the material removed from the mass of clay by the cutters was that of which the finished product was to be made, while in the wood-working machine the shavings and dust removed by the cylinder were merely waste. The

court considered the remoteness of the wood-working art from the clay-working art of importance but secondary in importance to the remoteness in the functions of the two machines. Quoting from the decision:

> "But where the alleged novelty consists in transferring a device from one branch of industry to another, the answer depends upon a variety of considerations. In such cases we are bound to inquire into the remoteness of the relationship of the two industries; what alterations were necessary to adapt the device to its new use, and what the value of such adaptation has been to the new industry. If the new use be analogous to the former one the court will undoubtedly be disposed to construe the patent more strictly, and to require clearer proof of the exercise of the inventive faculty in adapting it to the new use—particularly if the device be one of minor importance in its new field of usefulness. On the other hand, if the transfer be to a branch of industry but remotely allied to the other, and the effect of such transfer has been to supercede other methods of doing the same work, the court will look with a less critical eye upon the means employed in making the transfer.
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> . . . . . .
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> "It often requires as acute a perception of the relations between cause and effect, and as much of the peculiar intuitive genius which is a characteristic of great inventors, to grasp the idea that a device used in one art may be made available in another, as would be necessary to create the device de novo.
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> . . . . . .
>
> "As a result of the authorities upon this subject, it may be said that, if the new use be so nearly analogous to the former one, that the applicability of the device to its new use would occur to a person of ordinary mechanical skill, it is only a case of double use, but if the relations between them be remote, and especially if the use of the old device produce a new result, it

may at least involve an exercise of the inventive faculty. Much, however, must still depend upon the nature of the changes required to adapt the device to its new use."

The Hobbs *vs.* Beach case, 94 O. G., 2357, was a case involving the question whether or not a machine for cutting, pasting and attaching paper strips bearing addresses to newspaper wrappers was an anticipation of a patent for a machine for cutting pasting and attaching paper strips to the corners of paste-board boxes for the purpose of holding them together. The court held that it was not an anticipation. In the earlier machine there was a flat surface upon which the newspaper rested and a descending plunger with a flat-working face for pressing the strip onto the newspaper wrapper. In the box machine clamping dies having angular working faces were used, between which dies the corner of the box was pressed. The fact that the box machine had supplanted the means used up to that time for the same purpose appears to have been given considerable weight by the court, but it is believed that the decision could not have been otherwise had this argument not been presented.

An expansible piston in a pump is a reference for the same thing in a syringe. "A syringe is a kind of pump, and these uses are not only analogous, but closely so, for the expansible piston is expanded in each and works precisely as in the other. The difference, if any, is only in the size; but this does not affect the relation or operation of the parts. As machines, they appear to be the same." Tagliabue *vs.* Sondermann, 75 O. G., 188.

If a new mode of operation results from a reversal of motion of one of the parts of a machine, it is more than double use of the old machine. Keystone Mfg. Co. *vs.* Adams, 151 U. S., 139.

In Mast, etc., Company *vs.* Stover Mfg. Company, 177 U. S., 485, the device sued upon was a means for converting rotary motion into reciprocatory motion in a windmill. The broad idea was old in windmills and the particular gearing employed was old in other arts for the same purpose broadly. The patent was held void for double use.

The planing of ice and the planing of wood are analogous in spite of the fact that workmen who do the one do not ordinarily do the other. Briggs *vs.* Duell, 93 F. R., 972. See also, ex parte Briggs, 75 O. G., 1854.

In Deering *vs.* McCormick Harvesting Machine Co., 52 O. G., 1223, a claim for apparatus for raising, lowering and fastening the grain platform of a harvester was held anticipated by a device for doing the same thing to a window sash, there being no mechanical difference between the functions of the two devices.

In Model Bottling Co. *vs.* Anheuser, 190 F. R., 573, an apparatus for pasteurizing beer to preserve it was held to be a mere double use of a like apparatus for curing fish.

NEW USE OF OLD MANUFACTURE.

In the English case of Harwood *vs.* Northern Railway Co., 11 H. L., 654, the patent sued upon was for a rail joint in which the rails were held together by means of plates called "fishes," placed on both sides of the rails at the joint and bolted thereto, the plates having grooves therein in which the heads of the bolts rested to prevent their turning. The evidence showed that a bridge known as the Hackney bridge, had in it horizontal beams made up in sections joined by scarf joints with iron plates above and below the joint held in place by means of bolts, and that these plates were similar in form to applicant's fishes. The patent was held invalid on the ground of double use and the decision was affirmed in the House of Lords.

In the Supreme Court case of Tucker *vs.* Spaulding, 1 O. G., 144, suit was brought for the infringement of a detachable saw tooth. The court held the patent invalid as a mere double use of a prior patent for "a new and useful method of securing cutters to rotary discs," and said that if what the latter patent actually did is in its nature the same as sawing and its structure and action suggested to the mind of an ordinarily skillful mechanic this double use to which it could be adapted without material change, then such adaptation to the new use is not a new invention, and is not patentable.

In the Supreme Court case of Smith *vs.* Goodyear

Dental Vulcanite Co., 11 O. G., 246, the substitution of hard rubber plates for false teeth, where gold, tin and other materials had been used before, rubber permitting a slight "give" in response to movements of the jaws was held *not* a mere double use. The court said that a new product was the result, different from all that had preceded it, not merely in degree of usefulness and excellence, but different in kind, having new uses and purposes.

In Pennsylvania Railroad Co. *vs.* Locomotive Engine Safety Truck Co., 27 O. G., 207, the Supreme Court held that an apparatus for providing pivotal movement between the forward truck of a railroad car and the car body, when applied to the forward truck of a locomotive engine, involved mere double use.

In St. Germain *vs.* Brunswick, 51 O. G., 1129, a Supreme Court case, a revolving billiard cue rack, so far as the revolving feature was concerned, which was the only novelty in the case, was held mere double use of revolving dining tables and bottle casters.

The application of a well-known form of blade, used in the old hand tool for trimming sole edges, to a metal milling cutter, also old and well known, for the purpose of producing a rotary cutter for trimming sole edges, was held mere double use in Busell Trimmer Co. *vs.* Stevens, 53 O. G., 2044; Supreme Court.

A patent for an improvement in a telegraph key was held to cover the mere double use of that improvement in a sounder just as surely as though the word "sounder" had been used in the claim. Western Electric Co. *vs.* LaRue, 55 O. G., 571; Supreme Court case.

In Ansonia Brass and Copper Co. *vs.* Electrical Supply Co., Supreme Court, 58 O. G., 1692, the use of paint in connection with braided coverings as an insulation for electric wires intended to carry a moderately large current, such as that used in lighting, was regarded as anticipated by the use of paint in insulation coverings for wires intended to carry a small current, as in burglar alarm circuits. It was well known that paint of the constituents used in each case was practically non-combustible, and this quality was valuable as a preventive of fire in the large current conductors but unnecessary in the smaller ones. The court held that the large conductors involved

mere double use of the small conductors even though the new result, non-combustibility, had not before been contemplated.

In Browning *vs.* Colorado Telephone Co., 68 O. G., 1145, a Circuit Court of Appeals case, a terra cotta conduit for electric wires, divided into two sections by a longitudinal partition, was considered to be a double use merely of terra cotta building blocks so divided by one or more partitions.

The Circuit Court for the Western District of Pennsylvania in Paws and Hartman *vs.* Laughlins & Co., 73 O. G., 287, held that a ball joint between a tuyere and tuyere pipe was *not* mere double use of a ball joint between train pipes carrying air or steam. The court said: "Where the divergence between the uses of the two devices is so radically extreme, the conditions so radically different, and the difficulties so peculiar to the one that the adaptation of what was useful in one sphere to use in another would possibly require more inventive faculty than the creation of something novel in itself, the new adaptation is not double use."

NEW USE OF OLD COMPOSITION OF MATTER.

A new use of a known composition of matter is generally mere double use, but it *may* constitute invention. As stated by Curtis in his Law of Patents, "When the new use of a thing produces an improved effect never before produced, or develops or makes practical some new property of matter not previously known, the new use is not analogous to the former uses, and therefore the novelty of the mere agent is immaterial." The English case, Muntz *vs.* Foster, 2 Webster's Patent Cases, 96, will illustrate. The patentee had discovered that an alloy of zinc and copper in the proportions of 1½ to 1 when used as sheathing for ships would, as the patent expressed it, render "the said sheathing less liable to oxidation, and consequently more durable, than the ordinary copper sheathing now in use, though at the same time it oxidates sufficiently to keep the bottom of the vessel clean." The proofs showed a prior manufacture for sale of sheets of this alloy in the same proportions. But the patent was held valid nevertheless

upon the ground that the patentee had discovered a new property of the alloy which made it of value in the particular use which he claimed for it.

The mere double use of an old mechanical instrument with new material is not invention. See Hotchkiss *vs.* Greenwood, 11 Howard, 248, where the patent covered merely the substitution of potter's clay or any kind of porcelain as the material for making door knobs, which were attached to a spindle or shank in an old way. "Superiority of material can not of itself be the subject of a patent. The superiority must extend beyond mere comparative cheapness or durability, or adaptation to the purpose for which the old material was used, and must lead to some change in the construction or mode of operation."

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A Test of the Legitimacy of Claims to Methods

A paper read October 12, 1916, before the Examining Corps of the United States Patent Office

BY

W. W. TOWNSEND,

First Assistant Examiner, Division Twenty-seven,

U. S. Patent Office

WASHINGTON, D. C.

1916

LAW REPORTER PRINTING COMPANY, 518 FIFTH STREET NORTHWEST, WASHINGTON, D. C.

A Test of the Legitimacy of Claims to Methods

By

W. W. TOWNSEND,

First Assistant Examiner, Division Twenty-seven,
U. S. Patent Office.

No more difficult or troublesome questions arise in the course of the examination of applications for patents on inventions, than those growing out of claims to processes, methods, or arts, and relating to their legitimacy under the statute, their divisibility from claims to machines for carrying them out, or to products in which they result, and their treatment in general. The question as to legitimacy under the statute is from the nature of the case the most important, since upon its determination depends in many cases the settlement of the others and in fact any further intelligent action. It can not, for example, be intelligently decided whether division should be required between a claim to an alleged process and one for an apparatus for carrying it out, until it is known whether we have to deal with a true process or merely with the function of the apparatus.

Without some other and better test than those generally employed by examiners or discussed by the text writers, it is often impossible to settle the question of legitimacy in any rational way, convincing, conclusive, and satisfactory either to the examiner or to the applicant. It is in consequence often disposed of in what appears to be the easiest, but is nevertheless an illogical and unsatisfactory way, by merely ignoring it. Apparently as intangible, and certainly as elusive as Banquo's ghost, it is thus temporarily laid; but like the ghost it displays an uncomfortable and pernicious activity in refusing to stay laid. It therefore becomes a question of importance, whether there exists any criterion what-

ever of ready and demonstrable application, by which we may determine in a given case whether a legitimate process is present.

In many cases alleged process claims are so plainly technically bad by reason of dependence on particular mechanism or for similar reasons, that the mere statement of these grounds of rejection is sufficient to discourage further prosecution. In the majority of other cases where claims are presented as processes, whether in the same case with claims to a machine or otherwise concurrently therewith, which are in reality for functions only, they are so obviously such that rejections on this ground meet with acquiescence by the applicant; or the claims are cancelled for reasons based on the state of the art shown, or on policy, or on knowledge or lack of knowledge of the subject and of the real nature and scope of the invention. In a certain residuum of cases, however, applicants persist in the prosecution of alleged process claims of whose illegitimacy the examiner feels sure, without being able to conclusively demonstrate it. It is just in these cases that the need is most felt of some further and more reliable criterion than those commonly recognized and employed, since without some such test as is now to be outlined it becomes a mere matter of legal and linguistic skill on the part of the applicant or his counsel to so rephrase the claims as to reduce the question at issue to a mere difference of opinion, incapable of demonstration on either side.

Among the leading cases involving the Law of Patents, none is more interesting or instructive, or more typically illustrative for the purposes of this paper than the British case of Neilson—the so-called "Hot Blast Case." Neilson made a great industrial advance in the direction of economy and efficiency by a preliminary heating of the air blast of blast furnaces. So great was this advance that the patent granted to Neilson for his invention soon became the subject of litigation which resulted in the patent being sustained, but in the course of which the English jurists were very much exercised as to the proper interpretation of the patent and its validity. It was shown in evidence to have been matter of common knowledge and observation that the fires of blast furnaces

frequently burned better in winter than in summer—a result then erroneously attributed to the lower temperature of the air in the former season rather than to its true cause, viz., the comparatively dry condition of the air consequent upon its lower temperature. Further, and possibly as a result of the erroneous impression referred to, no one, so far as then known, had previously artificially heated the air blast of a blast furnace. Whether Neilson was led to his departure from accepted practice by theoretical considerations based on facts newly developed in the era of physical investigation then dawning, or by accident, or shrewd personal observation, we have no means of knowing. In any event he must be conceded to have been a real inventor; nor is he entitled to any less credit—rather, more—because the Babylonian excavations of our own day have shown the same invention to have been long previously developed by a people not so handicapped by seasonal variations of temperature and their effects. With Neilson's patent it became evident that he had made a useful industrial application of a thermal law, in other words a principle of Nature which must have taken effect whenever a natural rise of temperature occurred in the air delivered to a blast furnace. It is evident from the language used by the English jurists that they were chiefly concerned, not so much with the question whether the patent should be considered as one for a mechanism or one for an art, as with the question whether it must be construed as for a principle of Nature only and as therefore invalid, or as for a new means for usefully applying that principle and valid as such. Considering the historical perspective and in the light of our statutory law and practice thereunder and even with many of our judicial decisions in view, it is not to be wondered at that the terms in which the English judges expressed themselves are somewhat loose and seem difficult to reconcile. Sometimes the invention is referred to as a machine, sometimes as a mode; but it is significant and instructive to observe that wherever the invention is defined as a mode or process, this definition is, often in the same sentence, rephrased in terms of mechanism. Seek as the court may to find a form of expression which

will not define a mere principle and yet will apparently cover a process or mode and not a mere particular means, it is necessarily and inevitably brought back to the mechanical essence, for the simple reason that there is an indissoluble connection between the two sides of the invention. For example, it was stated by the Court of Exchequer, "After full consideration we think that the plaintiff does not merely claim a principle, *but a machine embodying a principle.*" and in the next sentence, "We think the case must be considered as if, *the principle being well known*, the plaintiff had first invented a mode of applying it; and his invention consists in this, *by interposing a receptacle for heated air between the blowing apparatus and the furnace.*" Again, it was stated by Baron Parke that the discovery was "the introduction of hot air by means of heating it before it was introduced into the furnace, between the blowing apparatus and the furnace;" and later by Lord Campbell, "I think the patent must be taken to extend to *all machines* whereby the air is heated intermediately between the blowing apparatus and the blast furnace." It is stated, it is true, by Justice Bradley, in Tilghman *vs.* Proctor, in so many words, that Neilson's patent was for a process; but in the same decision he not only quotes with approval the English rulings above given but also that of Chief Justice Taney in O'Reilly *vs.* Morse wherein it is stated that Neilson's patent was supported "*because he had invented a mechanical apparatus by* which a current of hot air instead of cold could be thrown in"—a statement whose accuracy and comprehensiveness is by no means vitiated by that immediately following, viz., "And this new *method* was protected by the patent. *The interposition of a heated receptacle of any form was the novelty he invented.*" In the quoted language the italics are the writer's.

By Chief Justice Taney, as by the English Judges, terms which under our present practice and terminology appear to be self-contradictory, are used as synonyms. In endeavoring to reconcile these apparent contradictions with each other and the present state of the Law, Decisions, and Practice, it is to be borne in mind that just as the English Constitution is in reality but a sequence

of customs, precedents and events as distinguished from a written instrument such as our own Constitution, so the English patent Law is, or was in Neilson's time and for many years thereafter, much more elastic and much less a creature of statutory definition than ours, in which the bounds and limits of patentable subject matter are undertaken to be specifically stated as including only arts, machines, articles of manufacture, and compositions of matter. Allowance must also be made for the natural and necessary growth in refinement of expression and accuracy of definition consequent upon a phenomenal industrial development and the litigation resulting therefrom. It is to be noted moreover, that so far as the expressions of the American jurists go, their effect would be to construe Neilson's case as one involving a pioneer invention, wherein the doctrine of equivalents will be extended to its widest range for the protection of a meritorious invention. Neilson had invented a fundamental combination. One may preserve an ocean of oxygen and another of hydrogen till the end of time inert; apply the lightning flash and there is a new birth, a combination, an ocean of water. So with Neilson: there were numberless air heaters and numberless blast furnaces before his time; with the mental lightning flash of the inventor a new mechanical combination was born—one embodying an irreducible mechanical and verbal minimum, since it consisted of but two elements, yet involving a maximum of effect and entitled to a maximum of protection. That combination was of a blast furnace and a preliminary air heater; and no matter what the form of expression of the decisions, it was in effect for that combination and that alone that the patent was sustained. Neilson had imitated nature, but he had done it by mechanical means which nature never could supply and which man never had supplied. He was a pioneer and as such received the protection to which he was entitled; but no more, whether his patent be considered to have been construed as for a process or for a machine.

What Neilson actually did may evidently be defined either from the point of view of the apparatus employed

or from that of the principle utilized or effect produced, in other words the method or process inherent in the apparatus. In terms of mechanism, Neilson's invention was an irreducible combination of two elements, viz., a blast furnace and a preliminary heater for the air. The term "blast furnace" has of course a collective meaning including the furnace proper and a means for delivering air under pressure thereto—elements which, except for brevity, might be included with the heater in a combination of three elements forming as accurate a definition of the invention as that first given. The kind of heater and its location are theoretically immaterial. Whatever they are, the essential effect produced is the same. No preliminary location of the heater can be conceived of, whether between the furnace and the blower or antecedent to the blower, which would not produce a useful effect of the sort which Neilson had in view.

If now we undertake to define the invention of Neilson as a method, it is found impossible to do so in any form of expression which will not either specifically include the heater in some way or be in terms and in effect for a principle of Nature and as such unsustainable without resort to construction and interpretation. If we say for example that the invention was a method of operating blast furnaces consisting in preliminarily heating the air, we are merely stating a principle of nature operating whenever the air was naturally of a higher temperature, and a claim of this sort could only be saved by construing it as including by necessary inference a specific means, viz., a heater, in other words as a claim to mechanism which should be wholly expressed as such. It is evident, in short, that so far as the invention involved patentable matter at all, distinguishable from a principle of nature, it was a combination of two elements, such as already formulated; no proper formulation as a method is possible which would be distinguishable from a principle of nature. It is safe to say, however, that if Neilson's case were to be filed in our office and in our day, it would contain at least the second of the given claim formulations and probably one in terms of mechanism also, thereby presenting one or more questions such as initially outlined. Nevertheless,

it is obvious that the formulation as a combination of two elements, and any formulation as a method which in itself or by construction would be distinguishable from a principle of nature would not only cover the whole of Neilson's invention, but would be substantially identical. If there is any difference in meaning between them, the method becomes a mere principle of nature, beyond the pale of patentable matter. Their mechanical and intellectual content of patentable matter is axiomatically the same. No embodiment of the stated combination can be conceived of which would not necessarily carry out the stated method; the execution of the method necessarily presupposes the combination. No measure of protection given by one is absent in the case of the other. If the formulated claims were presented and allowed in different cases, it is obvious that the result would be two patents for the same thing. If any further demonstration of identity were needed, it would be found in an application of the now well recognized principle, so frequently resorted to by the courts in order to determine the difficult questions of identity of invention and validity arising in suits for infringement, viz., that that which anticipates if earlier, infringes if later, and vice versa. If we consider either one of the given formulations of Neilson's invention as the subject of a prior patent it is again axiomatic that it would constitute an anticipation; conversely, either one, if later would obviously infringe an earlier patent for the other.

The application of what has been above stated to questions arising in actual office practice will be obvious, and may be summarized as follows:

If in any case presenting claims to an alleged process, the subject-matter of the process claims can be so formulated in terms of mechanism as to obviously leave no separate and distinct entity, subject-matter, or concept over and beyond the machine or its function to be the subject of a process claim; in other words so that the two formulations are obviously identical in patentable substance, meaning, scope, protection; then there is present no legitimate method or process. What is stated as such is then either a mere function or result or a mere abstract idea, or in terms a statement of a

principle of nature, as in such a process definition of Neilson's invention as already given, and in either case not within the field of protection provided by the law, since that field can in no case include all means for the execution of an inventive idea. The stated generalization is one which may seem difficult of application and of little practical importance; but that it is so only in seeming will become evident to any one who actually applies it to concrete cases. Such application of course presupposes a thorough understanding of the invention involved, an equally thorough knowledge of the art and of the practice, a good command of English, and some mental effort; factors understood to be a part of every examiner's equipment. Assuming a tentative formulation to have been made of an alleged method in terms of mechanism or structure which appear to be identical therewith in patentable substance, what tests are we to apply in order to demonstrate the apparent identity? Only those applied by the courts in order to determine the same question, viz., substantial identity, in other relations. Would the allowance of the two formulations in different cases mean the granting of two patents for the same thing? Would each anticipate the other if earlier, and infringe if later? Would every legitimate measure of protection given by one be present in the case of the other. Would the operation of the mechanism necessarily carry out the method? Would the execution of the method be impossible without the stated mechanism? Would the issuance of a patent for either exhaust the fount of patentability? If the answer to these questions is in the affirmative, identity is established. If the answer is in the negative, the case is presumably one involving a legitimate process, and perhaps one of those which the courts have referred to as theoretically possible, but which would be new to the writer's experience, and in which the process and apparatus are so connected and related that both may be properly included in a single application. Support for the view herein taken may be found in a collateral line of reasoning based on the ruling in *ex parte* Scheckner, C. D., 1903, 315, in which it was held that where the structure of a finished article does not reveal the procedure specified in

a claim to a process of making it, there is no such unity of invention between the two as to justify their presentation in a single case. It follows as a corollary that where such revelation is obvious, unity of invention exists; and it would seem to follow with equal force that where a stated mechanism *necessarily* reveals the process and the statement of the process with equal certainty reveals the mechanism there is present not merely a formal unity of invention but such an actual identity as to preclude the granting of claims for both, whether in the same case or in different cases.

It must never be forgotten that the identity in formulation herein intended must be axiomatic. A mere assertion of identity is not sufficient; it must be self-evidently apparent on the face of and inherent in the given formulations. Where this is the case no practical difficulty is found in the application of the test in question. The writer's experience with the class of cases in question extends over many years and many arts involving many varieties of process claims drawn by many practitioners and furnishing many opportunities for viewing the subject from many different angles. He has yet to find such a case which did not yield a logical solution on the application of the test under discussion and one which met with comprehension on the part of the applicant as well as at least theoretical acceptance; refusal to take corresponding action has been uniformly based on mistaken reasons of policy.

Assuming identity of meaning and scope in the given formulations to have been established, the question at once arises, where claims to both process and apparatus are present, which is legitimate and which is not? Which may be retained and which must be cancelled? And in a case where the process alone is claimed, what should be the action? The answer to these questions is most illuminatingly indicated in *ex parte* Herr, 41 O. G., 463, C. D., 1887—105; see also *ex parte* Simonds, C. D., 1888—78.

Under our law, a process to be legitimate, must be something more than and beyond the machine which carries it out, or the mere function of that machine; it must be a distinct and separate entity capable of distinct

and separate mental apprehension, and can have no existence under the law unless it satisfies this requirement. But if by a demonstration such as above outlined, a given claim to an alleged process is shown to be in substance merely a claim to a machine, clothed in another form of words, then it can have no separate existence. The value of the test herein outlined in the first of the above stated cases now becomes apparent since the question of division which might otherwise arise is at once forestalled and can not arise. In the case of an application involving process claims, only, the action is obviously a rejection on the ground that the claims are in the wrong form; the applicant being free to substitute for them equivalent apparatus claims. *Ex parte* Prevotte, C. D. 1901-170; *ex parte* Aberli, C. D., 1900-95.

Returning for a moment to the Neilson case, and by way of forestalling a possible criticism upon the view thereof already expressed, it seems proper to refer to a point which has doubtless already been observed. All the judicial definitions of Neilson's invention with the possible exception of that by Chief Justice Taney, contain the qualification that the heater is to *be between the blower and the furnace*. Much stress is laid upon the fact that the heater may be of any form and that the alleged infringers were none the less such because they used a form of heater different from that specifically described in the patent and one which experience showed to be more efficient; but the location of the heater between the blower and the furnace was considered vital. It was doubtless then the universal practice, and may be now, to locate the heater as stated, both for economy of fuel and because of possible injury to the blower from the high temperature of the air, had the blower been located between the heater and the furnace. The limitation imposed was therefore immaterial so far as the actual protection afforded to Neilson was concerned, since there was no monetary advantage then to be gained by differently locating the heater and thereby attempting to avoid infringement. Nevertheless, the limitation was not a necessary one; the essential thing was that the air was heated before it entered the

furnace; with the appliances of our day and the refractory materials freely available, a different location of the heater might perhaps have had sufficient advantage to tempt an imitator into risking being held an infringer. It may be that the Chief Justice had some such thought in mind when he defined Neilson's invention as "a mechanical apparatus by which a current of hot air, instead of cold, could be thrown in." At any rate Neilson's invention was plainly generic and it is for this reason that I have above defined it as a combination of two elements only—viz., a blast furnace and a preliminary heater for the air blast.

The Neilson case has been discussed at length because it is most typically and clearly illustrative. In the study of other recorded cases involving process claims, it would appear that many of them might have been more easily and satisfactorily disposed of had they been drawn and adjudicated upon the lines of the analysis herein made.

The principle involved in the application of the test of legitimacy under discussion is obviously sometimes capable of extension to cases involving claims to an article and claims to an alleged process of making the article, both by analogy drawn from the ruling in *ex parte* Scheckner already discussed, and in consonance with that in In re Butterfield, 108 O. G., 796, and 1589; C. D., 1904, pages 31 and 585. In the latter case, there were two claims to a shoe and a third drawn to an alleged process of making the shoe. Of this claim, it was said by the Examiners-in-Chief, referring to *ex parte* Trevette, C. D., 1901; 97 O. G., 1173, as authority, "the method claim is, on its face, nothing more than the necessary or obvious mode of making the shoe of the application, and is therefore not patentable." On appeal to the Commissioner, it was said by him, "The alleged process of claim 3 is not a true process. It is but another way of stating the construction of the article." Of the same claim it was said by the Court of Appeals of the District of Columbia that, "The process claimed in the third count, if it can be regarded as a process at all, and not as a statement of the mode of construction of the article described in the first and second counts has plainly been

anticipated." In the matter quoted, the term "mode" is evidently not used in the sense of process or method, but in the general or structural sense of the earlier decisions, for example, Tilghman *vs.* Proctor, wherein it is stated that a process may be a means. It is obvious that the rulings in the Butterfield case are merely another way of saying that where an alleged process and its product are claimed the test of the legitimacy of the process is this: Can the invention be so expressed in terms of structure as to leave no substantial entity to be the subject of a process claim; in other words, so that the two formulations are identical in meaning and scope? If it can be the process claim must fall. This is precisely the test propounded and discussed herein with particular reference to cases involving claims to a process alone or to a process and also to a machine for carrying out the process.

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Scope of the Phrase "Described in a Printed Publication"

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BY

ANDREW R. BENSON,

Principal Examiner, Division Twenty-eight,
U. S. Patent Office

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Among the negative conditions enumerated in Revised Statutes, Section 4886, the existence of which is required before an inventor can secure the grant of a valid patent, is that the invention for which protection is sought shall not have been "described in any printed publication in this or any foreign country before his invention or discovery thereof or more than two years prior to his application."

Therefore, in order to determine the patentability of an invention, it is necessary to ascertain what is meant, in the statutes, by the words "described," "printed," and "publication."

DESCRIBED.

The means most frequently employed to describe an invention are words, usually assisted by reference to drawings. Occasionally, however, such description consists in a drawing alone.

Since words, signs and symbols are merely the vehicles by which thought is transmitted from one individual to another, the first controversy that may arise in considering an alleged description of an invention is whether or not the inventive thought in question is actually transmitted by the said description.

A certain description of an object may be entirely incomprehensible to one person, partially understood by another, and perfectly comprehended by a third. The question, therefore, arises to what class of persons

must the alleged description convey the inventive thought; and to what extent must it be conveyed.

In the case of Plimpton vs. Malcomson (decided before a British tribunal, but quoted with approval by various United States courts), it is stated:

"But there are various kinds of people who know something about it. If it is a mechanical invention, as this is, you have, first of all, scientific mechanicians of the first class - eminent engineers; then you have scientific mechanicians of the second class managers of great manufactories, great employers of labor, persons who have studied mechanics not to the same extent as the first class, the scientific engineers, but still to a great extent for the purpose of conducting manufactories of complicated and unusual machines, and who therefore must have made the subject a matter of very considerable study; and in this class I should include foremen, being men of superior intelligence, who like their masters would be capable of invention, and like the scientific engineers would be able to find out what was meant even from slight hints, and still more from imperfect descriptions, and would be able to supplement, so as to succeed even from a defective description, and even more than that, would be able to correct an erroneous description. That is what I should say of the first two classes which I will call the scientific classes. The other class consists of the ordinary workman, using that amount of skill and intelligence which is fairly to be expected from him—not a careless man, but a careful man, though not possessing that great scientific knowledge or power of invention which would enable him by himself, unaided, to supplement a defective description, or correct an erroneous description."

The alleged anticipating description must be such as will convey the inventive thought completely to the ordinary workman employed in the art to which the invention relates; but need not be such as will convey the

invention to one unacquainted with the art in question.

Each art or industry employes ordinary workmen to perform various specific tasks; and each workman is usually confined to his own particular duty, and gains no knowledge of the industry as a whole by reason of his employment therein. It is necessary, therefore, in selecting the workman whose intelligence is to be the criterion, to choose him from the ranks of those employed in the particular duty to which the description relates.

For example, if the description related to a plan or design for a machine or engine, the workman whose intelligence and knowledge is to be the criterion should not be selected from those engaged in manipulating the various members of which the machine is composed, but from those whose duties involve the contemplation of the machine as a whole; such as a draftsman or designer.

Where the alleged description is verbal, either with or without the assistance of a drawing, the only controversy that can arise is as to the sufficiency of the description to convey the inventive thought to the ordinary workman engaged in the art to which the invention relates. This is a question of fact, to be decided in each individual case by the circumstances peculiar thereto; and as to which no legal principle of general application can be enunciated. In each individual case one's decision as to the sufficiency of a description is controlled by his conception of the intelligence possessed by an ordinary workman.

Such conception is influenced to some extent by interest in the result following a decision. Doubtless an examiner sometimes attributes to the workman a degree of intelligence beyond that usually possessed by one of that class. On the other hand, if the typical workman possessed only the intelligence frequently attributed to him by appliants, he would soon become a charge upon the public.

Controversy has arisen as to whether or not a disclosure made by a drawing alone can be regarded as a legal description.

It seems evident that Section 4886 of the Revised Statutes does not sanction the grant of a patent covering

an alleged invention, knowledge of which was accessible to the public prior to the conception thereof by the alleged inventor. Therefore, if the spirit of the law be followed, the term "described" as used in the statutes should be interpreted to include all printed or published means whereby knowledge of an alleged invention can be communicated.

However, in several cases pending in Division 28, in which were cited references consisting of a drawing alone, the invalidity of such references was strongly urged on the authority of several judicial decisions and on the contention that the word "described," as used in the patent statutes, necessarily implied the presence of verbal disclosure.

The word "described," as defined by standard authorities, means:

(1) To represent by drawing; to draw a plan of; to delineate; to trace or mark out.

(2) To represent by words written or spoken; to give an account of; to make known to others by words or signs.

The first group of definitions, it was argued, referred to the physical act of making a drawing. For example, to describe a circle.

The error in this reasoning, however, lies in the fact that "represent" means "to show," "to set forth." Therefore "to represent by drawing" means to show or set forth by drawing.

The second group of definitions, of course, does not cover a disclosure made by drawing alone, unless the term "sign" can be interpreted to cover a drawing.

The judicial decisions alleged to indicate that a drawing alone is not a valid disclosure will be discussed in their chronological order. They are the following:

Judson *vs.* Cope, 1 Fisher, 615 (S. Dist. Ohio, May, 1860):

This was a suit for infringement of a patent. The defense offered was lack of novelty in view of certain printed publications, among which was a German work consisting only of plates or drawings without verbal description.

Objection was made against the validity of this publication; and the court said:

> "I suppose it is not a matter of much importance in this case, but I should hesitate very much to accept a mere drawing, unaccompanied by any description whatever. I think it not admissible under the present notice."

The court did not state why it hesitated to accept the drawing alone, nor why it was a matter of no importance, it is reasonable to suppose that the court thought that the drawing was too obscure to disclose the invention. Certainly if the court had intended to enunciate the broad principle that a drawing alone was insufficient to disclose an invention, it would not have stated that it was a matter of no importance. This decision, therefore, can not be taken to establish the doctrine that a published drawing alone can never constitute an anticipation.

Reeves *vs.* Keystone Bridge Co. (U. S. Cir. Ct., E. Dist. of Pa., 1 C. C., 466—1872):

This was a suit for the infringement of a patent. Among other defences offered, it was alleged that the invention covered by the patent was anticipated by a certain publication known as the "Dreyfus Album," which album consisted of drawings alone.

Referring to this album, the court said:

> "It contains an illustration, by a drawing, of the thing intended to be represented, without verbal description; and whether this is a description at all or such a one as the act contemplates may well be denied on the authority of Seymour *vs.* Osborn (11 Wallace, p. 516) and the cases referred to therein with approval. But it is unnecessary to decide this question as the proof is deficient in another essential particular—it is not shown that the work was published before the date of the complainant's patent."

This decision expressly avoids a decision on the question here at issue. Furthermore, an examination of the

record in the case of Seymour *vs.* Osborn discloses no foundation for the dictum of the court relating to the validity of disclosure by drawings alone. The case of Seymour *vs.* Osborn in no way referred to this question. Consequently the case of Reeves *vs.* Keystone Bridge Co. can not be regarded as bearing on this subject.

In re Atterbury (C. D., 1876, page 79):

This case presented facts almost identical with those in the case of Reeves *vs.* Keystone Bridge Co.; and Commissioner Spear quotes with approval the opinion of the court in that case. However, a direct decision on the question at issue is again avoided, since the alleged anticipating drawing had no date of publication.

New Process Co. *vs.* Koch (C. D., 1884, page 421):

This was a suit for the infringement of patent 215,679, May 20, 1879, to Meller & Hoffman.

One of the defences was that the patent was anticipated by a certain patent to Pfaudler, issued July 2, 1878.

The assignees of the Pfaudler patent conducted the defense; and the court treated the case as a contest for priority of invention between the two patentees, rather than as a suit for infringement.

Meller & Hoffman, who were foreigners, endeavored to establish the date of introduction of their invention into the United States by certain circulars sent to persons engaged in the brewing trade, and with the view of introducing the Meller & Hoffman process into use here.

As to these circulars, the court said:

> "It is attempted to carry the date of plaintiff's invention back to the time when the circulars were received, which was undoubtedly anterior to the time when Pfaudler had perfected his mechanism. But it seems to me there are two objections to these circulars. First, they do not describe the Meller & Hoffman device with that clearness and certainty which the law requires for an anticipation. . . . Now, referring to the second circular which is much the fuller of

> the two, Meller says that (here follows the contents of the circular; which need not be quoted). This is all there is in the circular by way of specification. It is true that annexed thereto is an incomplete drawing which might possibly, to a skilled workman, give an idea as to the real construction of the device, but tested by the definition found in the two cases above cited, it seems to me to fall considerably short of the particularity required in a patent or in a publication claimed to anticipate a patent. . . . It has been frequently held that drawings alone, unaccompanied by letter-press description, will never invalidate a patent. In re Atterbury, Judson *vs.* Cope, Reeves *vs.* Keystone Bridge Co."

It appears from the above that the question under consideration was not involved. No reference consisting of a drawing alone was present in its record. Furthermore, even though such a drawing had been offered, the question to be decided by the court was whether or not it introduced knowledge of the invention into this country. The question as to whether or not the evidence offered was a publication was not involved, since it might have been sufficient to introduce knowledge without being a publication.

The court, therefore, in this decision, had no occasion to pass on this question; and its observation relative thereto was in reality an uncalled for dictum. It is to be observed also that this dictum was based on supposed precedents which, as above shown, fail to support it.

Decisions upholding, or tending to uphold, the validity of disclosures by a drawing alone are found in

> Ex parte Borden, C. D., 1884, p. 9.
> Wright *vs.* Yuengling, C. D., 1891, p. 560.
> American Writing Mach. Co. *vs.* Wagner Typewriting Mach. Co., 151 F. R., 576.
> Millet & Reed *vs.* Dvell, C. D., 1901, 410.

Ex parte Borden:

In the case of ex parte Borden, the examiner had cited as a reference a patent, the drawing of which

showed the alleged anticipating matter. It was not described in the patent.

Applicant petitioned the Commissioner to hold that a drawing alone without verbal description was not a valid description.

In his decision, Commissioner Butterworth said:

> "But even without any description, if a published drawing fully and clearly exhibits and discloses an invention sought to be patented, it is an adequate and complete reference of itself alone. A good, clear, and distinct drawing of an invention is a higher order of evidence of the existence of the invention than any mere description thereof in words."

Wright *vs.* Yuengling:

This was a suit for the infringement of patent No. 144,818, to the plaintiff Wright. The structure covered by the patent was a frame for stationary engines in which the cross-head guide was made in the form of a cylinder. The front end of this cylinder was connected with the engine base by a semi-circular trough-like connection in which the connecting rod reciprocated; and this trough-like body formed an element in the combination covered by claim 2 of the patent.

The defense set up against infringement of claim 2 was lack of novelty in view of the prior art.

As to this prior art, the court said:

> "The guiding cylinder, which is used in lieu of the ordinary parallel slides, was, however, by no means a novelty in the construction of engine frames. It is found in different stages of perfection in several patents. It is true that none of these patents exhibit distinctly the trough-like connection of the Wright patent, but that also is found in the patent to Chilion M. Farrar, in which it is fully shown in the drawing, *though not described in the specification*, and is used in connection with flat parallel slides. Wright's only invention, then, was in the combination of the cylindrical guide with the trough shown in

the Farrar patent. Did this accomplish a new and valuable result, it is quite possible that a patent therefor might have been sustained; but we do not find this to be the case. The cylindrical guide performs the same function as in the prior patents; and the trough, in which the connecting rod works in the Farrar patent, is practically the same as in the Wright patent, and the combination is a mere aggregation of their respective functions."

In this case, therefore, the court found that there was no invention in combining old elements; and the only evidence that one of these elements was old was a drawing without description. This is a Supreme Court decision; and was delivered by Justice Brown, who delivered the opinion, as a Circuit Judge, in the case of New Process Co. *vs.* Koch, above discussed.

American Writing Machine Co. *vs.* Wagner Typewriting Mach. Co.:

The subject-matter involved was a typewriter provided with an adjustable stop.

Defendant held that the patent was anticipated by a patent to Yost, granted April 23, 1889. The drawing of the Yost patent, and the model each showed the combination claimed; but the specification did not describe the adjustable stop. Oral testimony was offered as to the function of the stop shown by the drawing and model. The patent was held anticipated, but the court said:

> "If the proof of prior invention was confined to the Yost patent or to the oral testimony alone, or to the model alone it would probably be rejected as insufficient; but the three united present one of the strongest cases of anticipation with which we are acquainted."

In this case, therefore, a patent was held invalid on an anticipating disclosure of which a written description formed no portion, and of which disclosure the only portion that was published was a drawing.

Millett & Reed *vs.* Duell:

In this case, an appeal had been taken to the Court of Appeals of the District of Columbia from a decision of the Commissioner of Patents refusing letters patent to the appellants. The ground upon which such refusal was based was that the invention sought to be covered was disclosed in a certain patent which was issued three days after the filing of appellant's application, but which patent was granted on an application filed before the filing of appellant's application. Furthermore, the disclosure was made in the drawing alone, and not described in the specification.

The court sustained the Commissioner; but since the patent was not cited as an anticipating publication, but as an evidence of prior knowledge, the court's decision is not pertinent to the question under discussion.

PRINTED.

So far as I have been able to ascertain, the meaning of "printed" has never been the subject of judicial consideration. This, doubtless, is due to the fact that at present the universal method of producing a publication is by imprints from type; and therefore such publications do not offer grounds for controversy. Discussion of this subject is somewhat academic; but since publications can be made by other processes than by imprints from type, it may be interesting to consider what forms of publication may be covered by the term "printed."

Standard authorities define "printed" as—

(1) To fix or impress.

(2) To stamp something in or upon; to make an impression or mark by pressure.

(3) To strike off an impression from a set of type or the like.

(4) To take a copy from a negative by the action of light upon a sensitized surface.

The popular conception of the term "printed" implies a copy of something produced by pressure, or by the action of light upon a sensitized surface.

Such a conception is, however, too narrow. It is obvious that the information conveyed by a publication

made by characters upon a surface is independent of the means by which such characters are placed upon the surface. Therefore to limit the term "printed" to the method by which characters are formed would be contrary to the spirit of the law.

Since a publication is any means by which information is given to the public, and may be made by words written or spoken or by signs, it would seem reasonable to infer that the framers of the statute intended "printed" to be interpreted as meaning "fixed" in contradistinction to such fugitive means as oral words and signs.

This interpretation of "printed" is warranted by the first definition above given—to fix.

It is also a popular conception that a printed publication appeals to the eye; but with the above indicated interpretation of the term, it could cover fixed means of communication appealing to other than the visual sense; such as publications for the blind and even phonographic records.

PUBLICATION.

A disclosure, although printed, is not a publication until measures are taken to place the description within reach of the public.

As stated in Collier *vs.* Stimpson (20 F. R., 906):

> "Something more than 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."

This same decision enunciates the principle that the date placed by the publisher on an alleged publication is not evidence that it was actually published on that date or in fact that it was published at all; but, to be regarded as a publication, it must be shown to have been made accessible to the public.

The extent, however, to which the public avail themselves of this accessibility is immaterial.

In order to be a valid publication, it must be made accessible to the whole body of the public; and not confined to any particular class. Thus, trade circulars issued only to those interested or supposed to be interested in a certain art are not publications (Parsons *vs.* Colgate, C. D., 1883-319). This decision and one or two others following it as a precedent, have, I believe, been misinterpreted to hold that such circulars can not become publications. In my opinion, if such a circular were made accessible to the public, it would then become a publication; and the fact that it had originally been addressed to a portion only of the public would not prevent its use from being so expanded as to embrace the entire public.

November 2, 1916.

Endorsements and Cross-References

A Paper read November 2, 1916, before the Examining Corps of the United States Patent Office

BY

FRED M. HOPKINS,
First Assistant Examiner, Division Twenty-eight,
U. S. Patent Office

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THE LAW REPORTER PRINTING COMPANY, WASHINGTON, D. C.

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FRED M. HOPKINS,

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Rule 43 of the Rules of Practice and Commissioner's Orders Nos. 1832, 2010 and 2071 direct that certain classes of applications shall contain cross-references to each other; and that divisions, continuations and substitutes for previously filed applications shall have endorsements upon their file wrappers referring them to their parent cases.

There exists no definite statement as to exactly what is covered by the terms division, continuation, and substitute; and there are several classes of application which should logically bear endorsements on their file wrappers to show their connection with other applications, but which are not covered by the terms just quoted.

Therefore it is the purpose of this paper to discuss the object of such endorsements and cross-references with the view to more exactly define the significance of the terms in question, and to suggest forms of endorsement to be placed on the file wrappers of those applications which are not covered by the said terms but which nevertheless should bear some indication of their relationship to certain other cases.

Such endorsements and cross-references have several important functions.

First. They indicate the ownership of the applications. This information is necessary that the patents may issue to the proper parties. The assignment of an application affects the title, not only of that application, but of all divisions, continuations and substitutes thereof which may be filed. Such divisions, continuations and substitutes should issue to the assignee of the parent

case; and should therefore contain an indication of such relationship. As the relation of the applications can be determined only by a comparison of the applications, the assignment division, in dealing with the cases, is almost necessarily compelled to rely upon the notices appearing on the file wrappers and in the specifications.

Second. Where the original and subsequent applications are co-pending, the notices indicate the date to which applicant is entitled when, in the prosecution of the later application, its date of filing is considered.

Third. In the case of a patent, such a notice apprises any one examining the record of the patent that another application or patent exists which may contain claims covering the subject-matter disclosed in the patent containing the notice.

Fourth. The notices inform the public of other applications in which the prosecution of the claims might have been carried on; and prevent the practice, more or less common at one time, of prosecuting claims to allowance and then filing a new application containing only the allowed claims and giving no hint to the public of the steps leading up to allowance.

The relationship of the subsequent application to the parent case can be most easily and accurately determined by the examiner during the prosecution of the applications before him; and on him logically falls the duty of making the proper endorsement on the file wrapper and requiring proper references in the specifications.

The instructions placing this duty upon the examiner are found in Commissioner's Orders Nos. 1832, 2010, 2071 and Rule 43 of the Rules of Practice. These orders, when read together, direct as follows:

When an application is filed which, in the opinion of the examiner, is a division of, a continuation of, or a substitute for, a previously filed application, the examiner will not require applicant to insert a reference to the prior application in the specification; it being regarded as sufficient if this reference appears somewhere in the record of the application. The examiner will make the appropriate entry upon the face of the file wrapper. The heading of the printed patent will then conform to this entry.

Rule 43, relating to cross-references, reads as follows:

> "When an applicant files two or more applications relating to the same subject-matter of invention, all showing but only one claiming the same thing, the applications not claiming it must contain references to the application claiming it."

In the previously mentioned orders, only the three terms, division, continuation and substitute are used, and it is impossible to group under these three terms all the various applications requiring endorsements on the file wrappers, without extending the meaning of these terms beyond their commonly accepted significance. Since certain decisions have rather clearly defined the meaning of the terms division and continuation, it has been suggested that the term substitute should be applied to all cases which require endorsements and which are not covered by the terms division and continuation; but to me the broadening of these terms to cover a variety of applications having diversified characteristics appears improper.

The term *Division* has a well-defined meaning and is generally accepted as designating an application which contains only matter carved out of a previously filed application or which contains only such matter modified by immaterial additions or changes. A division must be filed during the pendency of the original application. To such applications and such only should the term division be applied.

It sometimes occurs, however, that an application is filed which, so far as the subject-matter is concerned, would be a true division of a previously filed case, but the filing of which was delayed until after the grant of a patent upon the original application. By reason of this lack of continuity in prosecution, this application can not properly be designated as a division. Such a later filed application, although, through lack of continuity in prosecution, not entitled to the date of filing of the first-filed application, would yet be covered by an assignment of the latter. Therefore, in order to insure the issuance of the patent to the proper party, the later filed application should contain some reference to the

earlier. Therefore since in practice the form of endorsement to be placed on the file wrapper of said case is not yet definitely decided and the latter case in every respect except that of filing is a division of the earlier, it is suggested that the term *Division Filed After Grant* be endorsed on the file wrapper. While, of course, such a case is not a division in the generally accepted meaning of the term, yet it is a division of the subject-matter of the earlier case. The proposed form of endorsement would indicate this fact, as well as disclose the break in continuity of prosecution.

The term *Continuation* does not have so generally accepted a meaning as the term division. It appears to be used in some decisions in a sense broad enough to cover any application which is entitled to the date of a previously filed application and where so used, would include divisions and substitutes. As all three terms are used in the orders, it is apparent that they are intended to have distinct meanings. Therefore, in the absence of definite instructions as to the meaning of this term, it is suggested that it be applied exclusively to those applications which contain only claims that could have been made in an earlier copending application, but the subject-matter of which involves a material departure from the earlier application. Such applications, like divisional applications are entitled to the date of the earlier applications, but, on account of the departure from the earlier applications, can not be termed divisions.

Similar to the cases above termed divisions, there are applications which, as far as the subject-matter is concerned, might be termed continuations, but the filing of which is delayed until after the issue of the original application. While such cases have no continuity of prosecution, there is, nevertheless, continuity of subject-matter and an assignment of the prior application would carry title to the subsequent application. It is therefore suggested that such an application might be designated *a Continuation Filed After Grant.* The words "filed after grant" clearly negative the idea that there is any continuity in prosecution of the two applications.

There is another class of applications which are clearly related to continuations, but which it will be misleading to endorse as such. These are applications whose

disclosure, while differing materially from that of prior applications, yet afford foundation for claims that might have been made therein and which contain claims both to the common subject-matter and that which is not common. These applications are entitled to the dates of the prior applications for the claims that could have been made therein and to their own dates for the remaining claims. Such applications have been termed *Continuations in Part.* The assignments of the prior applications do not carry title to such subsequent applications. Therefore there seems to be some question whether it is advisable to make any endorsement on the file wrappers of continuations in part. Since, however, a portion of the claims are entitled to a date earlier than that disclosed by the application, it is of interest to the public to have knowledge of the earlier application. Some reference to the earlier application should therefore appear in the record of the later application. In view of the possible advantage to be derived from the information given by such endorsement and in view of the absence of any apparent objection thereto, it is suggested that such cases bear the endorsement *Continuation in part.*

If an application having the characteristics of a continuation in part is filed after the issuance of a patent on the prior application, it could be endorsed *Continuation in Part Filed After Grant.*

The term *Substitute* should be applied only to an application which is substituted for, or replaces, another; the first application being forfeited or abandoned. This application of the word is consistent with its general use. This term would then be applied to an application substituted for another when the latter covered substantially the same and the entire subject-matter of a prior application. Such an application can not be termed a division, since it contains the entire disclosure of another application, nor, with the restricted meaning above given to the term continuation, can it be called a continuation or a continuation in part. For the two latter terms have been defined as involving a departure from the prior application. The most usual instance of this type of application is where an application is prosecuted to allowance and then abandoned in favor of a new application containing

the claims which were determined to be allowable in the prior application.

There could be no substitute filed after grant of a patent, since the subject-matter of the two applications would be the same and all claims of the later application should have been made in the prior application. Applicant's remedy in such a case would be a reissue of the patent.

These terms used as above suggested indicate the relationship that exists between the subject-matter of the several applications and also indicate by the words "filed after grant" whether or not applicant can carry back his date to a prior case. Furthermore, they cover all those cases in which endorsements on the file wrappers are necessary.

If a parent application contains claims which cover the structure disclosed in a division or a continuation, such division or continuation would come under Rule 43 requiring a cross-reference to the parent case. It appears, however, from Order No. 2071 that an endorsement on the file wrapper and notation in the heading of the printed patent are sufficient reference to the parent application to meet the requirements of Rule 43.

In the case of a continuation in part which discloses matter covered by claims in the prior application, if no endorsement of the prior application is made on the file wrapper, such continuation in part should, under Rule 43, contain a cross-reference to the earlier case.

All parent cases should, under Rule 43, contain cross-references to divisions, continuations, and continuations in part, as the latter cases all contain claims reading on the disclosure of the earlier cases.

There is a class of cases which require cross-references but not endorsements on the file wrappers. These are cases which disclose certain common features, one of the cases containing claims broad enough to read on the disclosure of the other case and the other containing specific claims reading only on the structure of its own case. In these cases, the specific case is not entitled to the date of the generic case, but should contain a cross-reference thereto. These cases may be filed simultaneously or on different dates.

Another class of applications in which cross-references

are necessary is where several applications disclose a common structure but the claims in each are limited to the specific features thereof.

In regard to the nature of the cross-references themselves, it was held in ex parte Finch, C. D., 1884, page 1, that references should state the serial numbers and dates of filing of the applications, and in ex parte Everitt, C. D., 1889, page 213, that "they must be of such nature that they will impart a more or less definite conception of their scope."

In ex parte Kellogg, C. D., 1906, page 84, two applications filed by different inventors were owned by the same party and the assignee wished to refer in one case to the other and it was held that there was nothing in the rule that applications are preserved in secrecy which would make the reference improper. Apparently a party should never be permitted to refer in one application to that filed by another unless both applications are owned by the same party.

Where an application to which reference is made matures into a patent before allowance of the latter case, the serial number and date of filing appearing in the cross-reference should be replaced by the number of the patent and the date of issue.

A reference in an application to another for a disclosure of a feature of invention should not be permitted, as each application should be complete in itself, and further, the application referred to may not mature into a patent. Ex parte Scott, C. D., 1901, page 59, and ex parte Kellogg, C. D., 1906, page 84.

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THE CLAIM AS A DEFINITION OF AN INVENTION

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BY

ARTHUR MINNICK,
Second Assistant Examiner, Division Twenty-nine,
U. S. Patent Office

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THE LAW REPORTER PRINTING COMPANY, 518 FIFTH ST. N. W., WASHINGTON, D. C

The Claim as a Definition of an Invention

By

ARTHUR MINNICK,

Second Assistant Examiner, Division Twenty-nine,
U. S. Patent Office.

Section 4888 of the Revised Statutes provides that an applicant for a patent shall "particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery." This portion of the statute is embodied in Rule 37 of the Rules of Practice, which states that the specification must conclude with a distinct claim or claims.

In Thomson-Houston Electric Co. *vs.* Elmira & Horseheads Ry. Co., 71 Fed. Rep., 396, the court said:

> "The claim is a statutory requirement prescribed for the purpose of making a patentee define what his invention is so distinctly and exactly as to apprise other inventors, and the public, what is withdrawn from general use.
>
> "The claim, however, is to be read in the light of the specification, and its literal terms may be enlarged or narrowed accordingly, but not to an extent inconsistent with their meaning.
>
> "Identity of language in the claims of two patents does not necessarily import that the invention patented by each is identical, nor does a difference in phraseology necessarily import that they are for different inventions.
>
> "The test of identity is whether both, when properly construed in the light of the description, define essentially the same thing."

In the case of the American Roll Gold Leaf Co. *vs.*

W. H. Coe Mfg. Co., 212 Fed Rep., 720, the court made this statement:

> "The protection afforded by a patent is specified in the claims, and the public have a right to rely upon the language of the claims in determining how far the patentee's rights go."

At the outset, then, we see that the language used in a claim is important. We find that patents may issue with claims identical in language but covering different inventions, and that because of this confusion, the courts find it necessary to construe the language used in the claim in the light of other things.

Probably the most common reason for the use of identical language in two different cases is because one applicant has copied the claims of another applicant or of a patentee for the purpose of interference. In the interference of Briggs *vs.* Lillie *vs.* Cooke *vs.* Jones and Taylor, 116 O. G., 871, 1905 C. D., 168, Commissioner Allen dealt with a case in which—

> "counts 1 and 2 have been maintained over the prior art only through construction and interpretation, by which they were assumed to be limited to structure which their terms do not in fact define. The practice in this office of imposing by mere interpretation or construction specific or definite meanings upon generic or indefinite claims of applications . . . can not be too severely criticised. Claims should be construed to mean what they state and nothing more. The wisdom and necessity of adhering to this simple rule is illustrated by the fact that four distinct meanings have been urged for the counts under consideration, these meanings to be secured largely by reading into the claims limitations which they do not, in fact, contain. The following quotation from Hedlund *vs.* Curtis (80 Ms., Dec., 278) applies here:
>
> " 'In determining the meaning of the issues, it should be borne in mind that the reasons for which claims are required demand that each claim express its meaning as clearly as possible upon its

face. Claims of applications will not be construed away from their plain obvious meanings, and limitations not clearly included in claims will not be read into them.'

"A claim should convey its meaning by express terms. It is not the proper function of construction to insert or eliminate terms, but to explain them. Claims should be amended, not construed, to avoid references, and the same course should be followed in all other cases where the meaning of claims is not clearly expressed by their language. Claims of doubtful meaning do not meet the statutory requirement that the applicant 'shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery.' "

In Ex parte Cutler, 123 O. G., 655, 1906 C. D., 247, the Commissioner was confronted with a case in which the applicant had made claims found in a patent granted to another party upon an application filed during the pendency of the petitioner's application.

The examiner held that the claims were allowable in the petitioner's application, but he refused to declare an interference on the ground that the claims meant different things in the different cases and that there was no interference in fact.

The Commissioner said:

> "The Examiner . . . has construed the plain broad terms of the common claims in view of different specific structures shown by the parties and in view of different specific purposes dwelt upon in their specifications and has imposed upon these claims in the different cases specific meanings which are not required by the language of the claims themselves. . . . In this office, a claim which is broadly drawn will be broadly read. If a narrow meaning is desired, it must be secured by limitations expressed in the claims. No better method is known for securing the benefits of uniformity and certainty in the construction of claims and at the same time giving

effect to the undoubted intention of the parties drawing them than to give invariably to each claim the broadest meaning which can be imposed upon it without violence to the language used therein. . . . The statutes require that parties shall distinguish their inventions from the inventions of others and that they shall particularly point out and distinctly claim their inventions. The definition of the invention and the distinctions between it and the inventions of others should be carried into the claims. Where different parties have the same claims and each has a proper foundation for them in his application, either the inventions which these claims represent in the different cases are the same or each party has failed to distinguish his invention from that of the other party.

"In the latter event, the claim is indefinite and ambiguous in each case and should be rejected."

In Podlesak and Podlesak *vs.* McInerney, 123 O. G., 1989; 1906 C. D., 265, each of two applicants made a claim in identical language. When the case reached the Court of Appeals it was remanded to the Commissioner for further consideration. He said in his decision:

"The claim reads without violence to the proper natural meaning of its terms upon the devices disclosed by each party; but the patentable invention which the claim is supposed to represent is found only in the device of one of the parties. Clearly under the circumstances the claim fails to define that invention. . . . This claim was rejected by the Primary Examiner. . . . The rejection was set aside by the Examiners-in-Chief. In this action, the Examiners-in-Chief referred to the specification of Podlesak and Podlesak and they undoubtedly construed the claim to involve the unmistakable distinctions between their device and the device of the reference. The claim does not in fact, however, express these distinctions by its terms, and . . . I perceive no good reason why it should be regarded

as further limited than its language requires. . . . No better method of construing claims is perceived than to give them in each case the broadest interpretation which they will support without straining the language in which they are couched. . . . That a claim which does not carry its true meaning upon its face misleads those affected by the patent instead of guiding them as to its true scope is alone sufficient reason why the Patent Office should refuse to recognize proposed limitations of claims which have not been clearly expressed therein."

These decisions refer to a claim as a *definition* of an *invention*.

What is a definition? What is an invention?

The Standard Dictionary, under the term "definition," says:

"Such a description of a word or thing with reference to its constitution, attributes, appearance, or relation to other like things, as serves to distinguish it from all other like things. Definition may be *rhetorical*, in which case it gives the meaning loosely, and freely uses accidental, relative, and extrinsic properties, or it may be *logical* in which case the conception is separated from all others by presenting its essential qualities.

"Perfect logical definition has two forms according as it regards the general term as (a) a class term or (b) as a concept term. In the former, the definition must give the *next higher genus* and the difference; in the latter, the *properties* of the higher genus and the properties which distinguish the concept as a species from other species."

"To *distinguish* from all other *like* things." This involves us in the question of classification. We group things together because they are alike. We distinguish them from each other by their differences. In our description of any class of things, we find ourselves under the necessity of defining the terms we use, to differentiate between varying phases of the ideas they denote.

The term "invention" has several meanings in common use—

(a) It may denote the creative faculty, the gift of *invention* which renders its possessor of value to mankind.

(b) It may denote the device in which an inventive idea is embodied, as in the statute Section 4886 "for investigating the public use or sale of *inventions*."

(c) It may denote the act of inventing, the intelligent apprehension of relations not before recognized by others, although actually existing, followed by the conception of how they can be practically utilized (Eck *vs.* Kutz, 132 Fed. Rep., 758), as in the same Section 4886, "before his *invention* or discovery."

Or, most specifically, (d) it may denote the *novel* concept, original with the applicant for which a patent may be rightly granted to him.

This last concept is the one which the claim is to define, to distinguish from all other like things.

When an application is filed in the office purporting to be a new and useful invention, the statute, Section 4893, provides that an examination shall 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. Section 4888 of the Revised Statutes refers to four classes of inventions: Art, machine, manufacture, or composition of matter.

Ordinarily, there should be little difficulty in determining whether or not any given claim relates to a composition of matter and an art or process is usually readily recognizable as such. In the case of the composition of matter, we are concerned with its chemical or physical qualities. In the art or method we are dealing with a series of operations.

When we consider a device as a machine, there appear to be three distinctly different aspects in which it may be regarded. We may look upon it as a means for performing an operation or a series of operations, and claims drawn to cover this idea are hardly to be distinguished from process claims. They are the machine statement of a process concept. The manufacturer of the machine,

who is concerned with the appearance, cheapness, durability, weight and other factors affecting its sale, looks upon it as an article of manufacture. Whether he shall paint it, or enamel it, or electroplate its parts, whether it shall be made of stamped metal or cast, and similar changes not affecting its function, relate to the machine as an article of manufacture. The aspect under which it would be considered in a treatise on machine design appears to be that contemplated by the statute. A machine is a combination of resistant bodies whose relative motions are completely restrained, and by means of which the natural energies at our disposal may be transformed into any special form of work. It comprises moving parts having a law of motion.

The term "manufacture" or "article of manufacture" is used to comprise those things which do not fall into the other classes. In considering their patentability, we are not concerned with the chemical composition of their parts, nor with a series of operations, nor with a group of moving parts having a law of motion. A hammer, a corkscrew, a bottle, a window sash, a shoe; each has a function due to the arrangement of its parts in space, a space configuration. The invention may reside in this configuration, and this is the ordinary case, or with an old space relation, the article may be made of a substance having properties previously not recognized as rendering it suitable for use for the purpose for which the article is employed, as a gelatine golf tee. The invention here lies in the particular application of a substance. Or with an old space relation and an old material, a new quality may be given to a part, as in a case where the inventor gave a spring temper to a hammer handle to render it resilient. (Held patentable by the Board on appeal.)

Most devices have many parts and differ from previously known devices only in certain details. The inventor was born into a society which for ages has been forced by the struggle for existence to devise expedients to adapt itself to its environment. He has learned to recognize different substances having different qualities. He has seen many mechanical devices and many processes. His education and experience have revealed to him part of this heritage of the race. When he con-

ceives his invention, if it be a true invention and novel, he has perceived relations between previously existing things capable of practical utility. His claims are to define what he considers his invention or discovery. They must not merely exclude prior devices; they must set forth some inventive idea or principle present in the applicant's device.

It is not safe to assume that all the features found to be novel in the disclosure were invented by the applicant. He may be working with others and embody in his illustration features with which his own invention are to be used, but which he knows are not his own. Rules 93, 94 and 96 recognize this fact and provide for the suggestion of claims and the institution of interference proceedings only where two or more parties claim the same invention. If an applicant is not claiming a novel detail, it is taken for granted that he does not consider it his invention.

The inventor, the attorney who prepares his application, the examiner who acts upon it, and the judge who tries his suit for infringement, all meet the same problem:

What is new? What has this invention added to the sum of human knowledge?

The examination of the claims is directed to the determination of several questions.

Does the claim read upon the structure, if there be a structure, or accurately set forth the composition of matter, or state correctly the steps in the process, or describe the true space relations of the article of manufacture, or define the law of motion of the machine? If not, its inaccuracy should be corrected.

Is the language of the claim readable upon a prior device, substance or process, so that it is anticipated? If it is, it should be amended to distinguish from the anticipating reference.

Are its terms free from ambiguity, so that it can not be misunderstood? If not, other language should be used.

Does the matter set forth in the claim include a patentable invention? This is the most difficult of all the questions. Its proper solution involves a study of what has been known or what has been done before and whether the new concept defined by the claim involves

more than the ordinary ingenuity of a skilled mechanic.

Assuming that there is patentable invention in the subject-matter of the claim, the question becomes:

Does the language of the claim define this patentable invention? Remembering that definition is of essentials not accidentals, what are the essentials in this claim?

It is evident that in a composition of matter, the language should define substances. In an art, the language should define operations.

In a manufacture, the language should define space relations or if these be old, the substance used for a type of article, or some specific and inherent quality or characteristic of the article or of a part of it.

In a machine, considered as the means for performing an operation, the elements should be defined in terms of means and function. In a machine considered as moving parts having a law of motion, the elements should be defined in language expressing parts having a recognized law of motion or setting forth the motion explicitly.

The fundamental reason for the rejection of a claim upon the ground of aggregation is that it does not define an invention, but confuses two or more inventive ideas. The present office practice permits an applicant to claim two or more inventions in the same application under certain circumstances, but the examiner should see that each invention is defined in a separate claim.

The point which this paper seeks to emphasize is that the claim is a *definition*.

It is not the limitation of the use of an invention to a specific art while dedicating to the public its use elsewhere.

It is not the description of a structure of which the invention forms a part.

It is not merely a form of language readable upon a device which involved invention.

It is a *definition* of an invention.

November 9, 1916.

Comments Upon the Prolonged Pendency of Applications in the Patent Office

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BY

BALLARD N. MORRIS,

Principal Examiner, Division Twenty-nine,

U. S. Patent Office

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LAW REPORTER PRINTING COMPANY, 518 FIFTH STREET NORTHWEST, WASHINGTON, D. C.

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B. N. MORRIS,

Principal Examiner, Division 29,
U. S. Patent Office.

Although everybody in the Patent Office is, probably, more or less keenly aware of the undesirableness of delay in the final disposition of applications, the possible evils thereof are not constantly and immediately before us in connection with each case, especially in the earlier stages of its life. It may therefore serve a useful purpose to sum them up as a means of keeping them constantly in mind, for the evils bear heavily upon the applicant, his attorney, the office and the public. Undue delay discourages an applicant and often embarrasses him in working or disposing of his invention. It frequently prejudices an attorney with his client. It increases the work of the office and the attorney, both by dulling the recollection and loosening the grasp of each upon the important facts involved, and by vastly increasing the probability of interferences and of the arising of adverse rights. But, perhaps most important of all, it frequently imposes heavy burdens upon a defenseless public, in which must be included patentees of cognate devices and manufacturers who have often invested large sums upon the basis of a supposed state of the art completely altered by a patent granted upon some application antedating all previously obtainable information upon the subject.

Recognizing these evils has led me to consider how the examining corps can best avoid any share in their production. That in each division, we act upon all cases

and papers filed, at the earliest date possibly consistent with a proper consideration thereof, is of course to be assumed, as also, that each action is the best of which we are individually capable, and I need hardly word the experience, I am sure of each of us that the most careful and painstaking treatment, both as to merits and form, in the first action upon an application, fully justifies itself in the long run, despite an occasional temptation to just off-hand reject upon a "pat" reference "first out of the box" so dear to the heart of the new fourth.

I may, however, mention a useful custom, followed I believe by most of us, which I am sorry to say, I fear is not universal, but which I deem of great value in this connection. This custom is for the examiner in charge to inspect the new cases received each day and assign each to the assistant who is expected to handle it. If the examiner is in doubt as to the case being properly assigned to that division he consults the appropriate assistant who, it may be observed, is very likely to have quite earnest convictions against accepting any case not clearly within his class. If the examiner and assistant can not agree upon accepting the case, the assistant is invited to consult any other division involved and to gather all data bearing on its assignment elsewhere. If the examiner is still in doubt, or believes a case for transfer has been made out, the case is referred to the Classification Division. All this is prior to the entering of the application on the examiner's register. When cases have been entered on the register, they are delivered to the respective assistants, who are instructed to inspect them as to the inventive matter disclosed, with sufficient care to make certain that they are properly assigned—in case of oversight by the examiner in charge—to ascertain whether any interference with any pending case be probable, and to ascertain its relation to his classes, to such a degree, that if between the date of such inspection and the reaching of the case in its order, in the searching of other cases, any class not palpably pertinent, is found to contain patents apparently bearing thereon, the fact may be noted in the case for future detailed consideration.

The time saved and completeness of search facilitated by this preliminary inspection by the assistant, and the early opportunity given other divisions to make the same inspection is believed to materially speed the progress of applications through the Office and I should suppose this custom to be universal were it not that occasionally assistants from other divisions explain delays in offering cases, obviously proper for transfer, on the ground that they have just seen the case for the first time.

Also, along the line of a suggestion by Mr. Frederick P. Fish in his instructive address to us, I may say that if it is at all practicable without serious sacrifice of time, and especially as to formal matters, I find it of the greatest possible advantage in hastening prosecution, that the official action suggest exactly what should be done, even to the extent of supplying language and indicating the exact plane of necessary sectional views, for instance, rather than merely to indicate the short-comings necessary to be remedied. There seems to be some human trait that causes the mind to fear, resent, or oppose, what is not fully understood. By the majority, a concrete example is far more readily understood than the most explicitly worded abstract proposition. Even those aggressive minds which are impatient of suggestion, are still more impatient of less definite criticism, and while they may repudiate the language of the examiner, their excess of individuality is as likely to result in their trying to do the same thing better (and in fact doing so) as in opposing the change sought.

Besides care and diligence in his own work, what more can an examiner do to shorten the life of an application beyond what may be sought by an over-driven, or negligent, wilful or incompetent attorney, or a lost-interest inventor, or an applicant plotting to play cat and mouse with the public and taking unjust advantage of all the just privileges of the statutes and the rules?

Broadly, this: Having first insured so far as possible that in the first action the case has been treated so fully throughout, that no new ground of objection or rejection need be thereafter stated, which would delay final action for second consideration thereof, the examiner is then in position to insist that in every response, applicant

similarly shall cover the entire field. Rule 68 provides that in amending —

> "applicant must clearly point out *all* the patentable novelty which he thinks the case presents in view of the state of the art disclosed by the references cited or the objections made. He must also show how the amendments avoid such references or objections."

Rule 17 says:

> "Prosecution of an application to save it from abandonment must include such proper action as the condition of the case may require."

The broad authority given by these rules, to insist, not only upon such response, as will make some slight progress in the case, but upon such complete response as shall advance the case, in every respect, to the next stage, is obvious. But difficulties arise in exercising this authority, which often necessitates the exercise of keen judgment and discretion.

Applicant's reply may be truly responsive to the office action, in any degree, from the smallest item only, to the entire extent or purport of such action, or, it may be utterly irresponsive in every respect and may also be informal—for instance, unsigned.

By "responsive" is not meant, of course, that the views of the examiner are accepted by the applicant, but if they are not, it is believed that some, at least plausible attempt, must be made to show the error of the examiner, upon the first response to a criticism or rejection.

As compliance with formal requirements, not affecting the merits, may be postponed until either agreement or an issue is reached, between an applicant and the examiner, responsiveness has a somewhat different application as to the formal criticisms than as to those affecting the merits. Even ignoring, until this stage, of formal requirements, not emphasized by the examiner for cause, may be disregarded. But when the final stage as to the merits is reached, and applicant cancels all rejected claims, or receives a final rejection, it is believed to be then incumbent upon him to completely

prepare the case for issue, or, for appeal, as, by meeting the requirement, arguing at least plausibly against it, if it has not also been made final, or if it has, by filing a petition. Less than one of these courses is clearly not such "proper" action as the condition of the case may require.

Applicant's response may be filed any time, from a day to a year after the official action. The action then proper to be taken, may depend upon the extent of the delay.

In Division 29, immediately a response has been entered in the file—and previous thereto, if it be a substitute specification, or if it direct a cancellation of the drawing, or is not properly signed, or, is not filed within the year—it is placed on the assistant's desk, who is instructed to examine it that day. If the case be in condition for allowance it is immediately passed to issue. If allowable, except for formal matters, action is taken immediately, calling attention thereto, and if they have been previously noted as they should have been (unless they occur in the new paper) applicant is informed that the year within which response must be made dates from the last previous action. If the time be short and further response be not within the year but is made with absolute promptness and renders the case allowable, it is entered and the case allowed; the promptness and full correction being accepted as evidence that full response was contemplated and merely omitted by inadvertence. But if the response beyond the year be again irresponsive it can not be presumed that a fully responsive action within the year was even contemplated, and it is believed that the examiner should hold the case to have become abandoned. Or, if there be ample time and the merely formal amendment be delayed beyond the year, or, if whatever may be filed within the year, be not fully responsive it is believed then, also, the examiner should hold the case abandoned.

It has been suggested that the examiner should not be so strict or so technical in finding abandonment upon the first delay of a year, as he may if such delay has occurred several times, but the statute and the rules make no distinction and it is my observation that when an applicant long delays response to the first action, he

rarely, if ever, acts more speedily later, unless pressure be exercised.

If applicant's response does not place the case in condition for allowance as to the merits, the case takes its place for action in regular order, unless the paper be not properly signed and be filed near the end of the year, in which case applicant is promptly notified as required by the Commissioner's Order No. 1961. Of course, an amendment vitally defective in form, as, by not being properly signed, can not be entered so as to modify the case, but unless it be filed near the close of the year, so that immediate notification without waiting for action on the case in its regular order, is necessary, as provided in said order, I have made it a practice, though not so authorized by the order, to endorse it on the file and place it therein, instead of returning it as authorized in the order and besides the announcement of the informality of the paper applicant is given, in substance, the same action upon the case as if the paper had been formally presented. By this course, especially if the paper be irresponsive or ineffective, prosecution need not be delayed by futile presentation, formally, of the same defects, but applicant may in the formal paper, remedy the other defects of the previous one. In order that no injustice be done other applicants this action is not had until the case is reached in its order, which also gives applicant himself a chance to discover and remedy the formal defect which often happens, and this also sometimes prevents the crossing in the mails, of the examiner's criticism and the voluntary attempt of the applicant to remove the cause.

Where an amendment only partly covers the case—unless the part treated be quite immaterial—it frequently happens that to delay action, on the ground that piece-meal prosecution is not to be encouraged, does not tend to shorten the life of an application. If the paper raises any substantial point, adequate action thereon by the Office, will often tend to advance the case, but it should always be accompanied by a reminder that the paper is not fully responsive and therefore is insufficient to save the case from abandonment, unless supported by further necessary prosecution to be filed within a year from the preceding action. Frequently such partial

amendments are mere "feelers." If applicant or his attorney can speedily ascertain that certain claims will be allowed, it may be that others will be dropped in order to expedite the case. If the examiner can make it clear that they can not be, then attention is apt to be concentrated in the next response upon the remaining matters. Here is where discretion must be exercised. If upon the record already made in the application, or, upon matters already in his knowledge, the examiner feels satisfied that a complete decision can be made on so much as is involved in the amendment, I can see no reason why he should not be willing to give applicant at this stage the benefit of his conclusions. Or, if he is satisfied that there is no other possible patentable feature in the case or that as to the rest of the case no further examination or argument can possibly develop anything further, material to the case, although the partial amendment requires further search or further application of the references for complete action thereon, it seems to me best that action so far as possible be given at this time in order to expedite the case. There are, however, cases, where an application is full of details, many of which have not been claimed and which the examiner would naturally deem so obvious that they never should be claimed and wherein all substantial invention has been completely anticipated, but when the claims in every amendment jump from one set of details to another, when everything justifies the examiner in expecting that every future amendment will require a new search or a new ground of action. In such cases, an obviously partial response, demands no consideration whatever, beyond acknowledgment that it has been filed, with the statement that because of its incompleteness it requires no further action until full response to the Office action is made. In many of these cases the whole intent of applicant or his attorney is to multiply actions, for each of which, I understand, a separate sum is charged the client by certain firms, and to badger the examiner into the attitude of the judge in the Scriptures, whom the woman worried into rendering an unlawful decision. This is the class of cases which necessitates the general rule against "piece-meal prosecution," in the interest of expediting cases and preventing unworthy applicants or attorneys from monopolizing

the attention of the Office, to the detriment of other applicants. Certainly, however, the examining corps should not prejudice so salutary and necessary a rule by misapplying it when it would delay instead of expedite the final determination of cases.

There is one type of cases, in which both the utmost delay and at least partial non-responsiveness, is so nearly invariable as to be in effect the rule. The application, usually for a more or less complicated structure, fails essentially to disclose an operative device, and often it would seem that the preparation thereof has been attempted without sufficient data, or, by some one incompetent to prepare such a case. Whichever it be, the same cause which led to the defective preparation of the case will ordinarily continue to dominate its prosecution. If it be a mental incapacity, the same incapacity stands in the way of an understanding of the examiner's criticisms. Also, when a moral obliquity permits an attorney to file a case knowing and understanding its deficiencies of disclosure, the same obliquity, will lead him to evade the issue, to attempt to divert attention, or, to pretend not to understand the defect or the examiner's criticisms. Either cause also leads to delay. It is obvious that the case is a bug-bear to the prosecutor. He avoids taking it up until the last moment. Perhaps, he hopes that time will dull the acuteness of the examiner's perceptions. He is especially insistent upon the citation of references and action upon the merits of claims not involving the inoperativeness, and that all such formal questions be deferred until that of the scope and allowability of the claims be determined. It is very seldom that an inventor prosecuting his own case pursues such an evasive or dilatory course, in response to a criticism of inoperativeness, unless he is of absolutely unsound mind, and however in error he may be, in theory or practice, an inventor usually hastens to meet an issue of inoperativeness, often to be sure, by suggesting inadmissible new matter, or by propounding fallacies, but also often by showing that the supposed inoperativeness is merely due to an accidental omission to state some operative relation which, though not apparent, can be shown necessarily to inhere in the structure disclosed. Especially quick is the actual inventor to respond to any inputa-

tion on the operativeness of his device. This suggests that, in many cases when the attorney so evades, and delays, he is playing as unfairly with his client as he is with the Office. He seems unwilling to put the matter up to the inventor, perhaps, because he fears to betray his carelessness or incompetency. The longer he delays, the more unwilling he becomes, regardless of the fact that such delay may seriously prejudice the interests of the inventor, if it becomes necessary to file a new application.

Obviously there is no advantage either to the public or to the applicant in any exhibition of leniency in such cases. Postponement of drastic action may vitally prejudice both. The first office action should make clear that the question of inoperativeness is vital (for of course we are not now discussing mere incidental or collateral defects such as obvious mistakes or oversights of a draftsman) and, although references may be cited, and applied, and claims rejected, warning should be given, that no further complete action will be had, until the objection of inoperativeness is disposed of. Full warrant for this position is presented by the fact, that until an operative invention is presented, there is no inventive substance to be treated. It may be well that the action add that it is not apparent that an operative disclosure can be made, without the presentation of new matter, and that failure adequately to respond to the criticism upon this ground, within the year, may work an abandonment of the application.

If the response to this action presents the claims in such shape that they avoid all references, or may be finally rejected on those cited, the next action should so reject, or state that the claims cover novel matter, because this clears the deck, and leaves the matter of inoperativeness to stand out alone. If the response does not admit of this and does not advance the case as to the question of inoperativeness, it is believed that the action should be confined to the latter question, in order to avoid confusion, and because complete action, upon a structure which is inoperative, can not be had. If, for instance, the applicant merely controverts the examiner's holding of inoperativeness, without attempting to remedy the defects of description, or illustration, this obviously

advances the case to the point of enabling the examiner to repeat the action when, of course, if the rest of the case permits, it may be made final, or, if further action, otherwise, be necessary, as for instance, the citing of additional references to amended claims, or a re-application of the references, or, occasion for further criticism has arisen, such additional action must be had and final action on inoperativeness must wait for final action on the remaining points.

On the other hand, amendment to correct inoperativeness by introducing new matter, of course, requires objection or rejection or both on this ground, and as this new ground postpones final action on the case, as a whole, complete action on all other phases of the case is ordinarily advisable in order that the next action may, be final on all questions.

If the only response upon the subject of inoperativeness, is an ineffective amendment, not meeting in substance the examiner's position, the insufficiencies should be briefly pointed out, and the paper stated to be not responsive, and further action refused, unless, as above stated, by final rejection of or admission of novelty in the claims, the issue between the examiner and applicant, can be limited to the single point, in which case, the appropriate announcement can be coupled with the holding of irresponsiveness, if the response has been filed so that action can be had before the end of the year.

In either case, if the response is delayed beyond the end of the year, the application should be held to have become abandoned.

In several instances where it has been thus indicated that the examiner should hold the case abandoned, this is not meant as even suggesting that such a holding must be sustained by the Commissioner if the matter be carried up by petition.

As I read and apply the statute R. S. 4894 and Rules 171 and 172, founded thereon, the Commissioner alone has the authority actually to decide what degree or manner of prosecution is necessary to avoid abandonment, and what delay is excusable, and nothing here said is meant to encroach on this jurisdiction even by suggestion.

On the contrary the aim is to caution against any such

encroaching by the examining corps, for I consider that a failure to note a delay to prosecute properly within the year, amounts to a decision that the delay was proper or unavoidable, which the examiner has no right to decide, if there be any conditions which raise the question.

During the last eight years Division 29 has probably raised this question as often, if not oftener, than any other division in the Office. In about a third of the cases it has been sustained without comment. In about a third the examiner has been overruled as wrong in the particular case. In the remaining third, it might be said that applicant was let out with a warning.

In every case there has been a very noticeable difference in the prosecution thereafter and the examiner can not but feel that a good purpose was served. He can not help believing that the interests of the applicant, the Office and the public have profited, and that it is a wholesome thing for the practice that a primary examiner should be strict rather than lax in raising the question.

It is believed to be wholly due to so strictly holding applicants to complete prosecution within the year, that Division 29 has no pending case earlier than March, 1910, that there are only five cases filed in 1910 that are still pending before the examiner and only six filed in 1911, all of which stand finally rejected and a proportionately small number in 1912, 1913 and 1914, while before this course was adopted there were cases pending in Division 29 which were filed before the change in the law limiting to one year the period for response by applicants.

The Commissioner wishes me to add to the foregoing discussion the statement that even where he overrules the primary examiner and holds the application not abandoned, he is careful to require that the application be brought into condition for final action before passing on the question presented for his determination; and delay by the applicant in filing a proper amendment at this stage is considered to be a part of the delay which must be shown to be unavoidable.

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MULTIPLICITY OF CLAIMS

A paper read November 16, 1916, before the Examining Corps of the United States Patent Office

BY

WILLIAM R. PRATT,
First Assistant Examiner, Division Thirty,
U. S. Patent Office

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Multiplicity of Claims

By

WILLIAM R. PRATT,

First Assistant Examiner, Division Thirty,

U. S. Patent Office.

One of the most vital and important portions of the Patent Statutes is that which states that an applicant "shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery."

Commenting on this, Walker says:

> "It is the practice of many solicitors of patents to write claims in vague phraseology, with an idea that vagueness is elasticity, and that elasticity is excellence. Such a practice is neither honest nor expedient. It is not honest, because it is often intended, and always adapted, to deceive the public, and to lead individuals into unintended infringement. It is not expedient, because dishonesty is bad policy in matters of patents, as in all other human affairs, and because vagueness of claims may make a patent void which would otherwise be valid. It is the practice of many other solicitors of patents to write claims in loose phraseology, because they do not know how to write precise sentences. By multiplying words they hope to hit the mark, on the same principle that the user of a shot gun hopes to hit a solitary bird. But the principles which apply to shot guns do not apply to rhetoric. The true rhetorician uses a rifle, not a blunderbuss. With him every word hits its target, because it is adapted to do so, and because he knows how to aim it."

These words are even more true today than when written. As any given art develops, applications relate more and more to detail improvements rather than to pioneer inventions. As the principles of classification are more closely applied, applications are limited to devices relating to some particular subclass, and no longer contain claims covering widely different features. Under such circumstances the natural supposition would be that the average number of claims drawn on any feature of invention would decrease. Just the opposite appears to be the case.

For example, typewriter patents were formerly issued which illustrated a complete machine and claimed from eight to ten features, each separate and distinct from the other, and which would now be made the subject-matter of a separate application. Such patents sometimes contained from seventy-five to a hundred claims, rarely more. It is evident that a comparatively small number of claims would be devoted to each feature.

Quite recently there issued a patent for a simple scale mechanism for a typewriter. It comprises one sheet of drawings upon which the reference numerals run from 1 to 20. This patent contained thirty-seven claims, and the applicant endeavored to obtain a larger number.

A recently filed application for an automobile headlight of comparatively simple character contained when filed 565 claims. Another quite simple typewriter application contained 259 claims. In the somewhat more complex fields, such as adding machines, applications and patents containing over 500 claims are not uncommon.

But there is no need to multiply examples; such applications are familiar to all of you. There is probably no single thing which causes a greater waste of valuable time, and a greater wear and tear upon the naturally pleasant dispositions of the members of the Examining Corps, than this prevalent practice of presenting and insisting upon a number of claims which is at total variance with the actual scope and real importance of the invention disclosed.

With practical unanimity, the courts have taken a well defined and clearly expressed position opposed to

the practice of multiplying claims. In Carlton *vs.* Bokee, 17 Wallace, 463-473; 2 O. G., 520; Myer's Federal Decisions, Sections 799, et seq., a reissue patent was under consideration by the Supreme Court, which said in part:

> "The single claim of the original patent is expanded into seven distinct claims. The first three of these claims, taken with the qualifications which they contain, and limited as they must be by the state of the art at the time when the original patent was applied for, amount to precisely the same thing and to no more than the one claim of the original patent. . . . The same may be said of the second and third claims. If they mean anything more than the claim in the original patent, they are void. Being identical with that, they are needlessly multiplied, and by exhibiting a seeming of claims to which Reichmann was not entitled, they are calculated to confuse and mislead. We think it proper to reiterate our disapprobation of these ingenious attempts to expand a simple invention of a distinct device into an all embracing claim, calculated by its wide generalizations and ambiguous language to discourage further invention in the same department of industry and to cover antecedent inventions. Without deciding that a repetition of substantially the same claim in different words will vitiate a patent, we hold that where a specification, by ambiguity and a needless multiplication of nebulous claims, is calculated to deceive and mislead the public, the patent is void."

If the presentation of seven claims in a simple case called forth such incisive comments, one is inclined to wonder what the court would have said if the above mentioned typewriter scale patent with its thirty-seven claims had come before them for consideration.

In The Brush Electric Company *vs.* The Electrical

Accumulator Co. et al., 56 O. G., 1334; C. D., 1891, 477, the court said:

> "It seems that in his anxiety to claim his invention in every conceivable form the patentee has involved himself in a labyrinth of description and claims, in which electrician and lawyer alike are quite apt to become confused.
>
> "What Mr. Brush accomplished in 1879 and 1880 can be embraced in a brief, clear, and concise statement. What he actually did is the test by which his patents must be judged. He is entitled to what he invented and only this. His patents can receive no broader construction because he described his inventions with irksome prolixity and gives to the same structure a wearisome variety of names. The nomenclaturist should not seek the reward for his labors in the Patent Office. A person is not entitled to a patent because he has invented a new word. The danger and impropriety of holding a number of claims relating to the same structure, and which can be differentiated only by the most abstruse and metaphysical distinctions, seem apparent. They are calculated to embarrass the inventor and mislead the public."

One familiar with present day applications and patents would imagine that the patent under discussion must have contained at least a hundred claims to call forth such sweeping condemnation. Not so! The court had under consideration four patents with a total of thirty-five claims. Further comment is unnecessary.

In Thomson-Houston Electric Co. *vs.* Elmira and Horseheads Railway Co., 74 O. G., 144; C. D., 1896, 122; the court used the following language:

> "If there be any deviation from this determination, it is due to the fact that he has obscured his real invention in a multitude of fuliginous and attenuated claims, many of which can only be distinguished when their language is subjected to the most searching analysis. He has particularly pointed out his invention in the description; but,

because of this seemingly needless verbosity, he has claimed it indistinctly, to the annoyance of the public, and especially that part of the public which is called upon to construe the patent. A fair amount of tautology and reiteration is prudent and permissible in the claims of a patent; but it is hardly conceivable that it requires thirty-five claims to secure a comparatively simple mechanical invention. Where the patentee has taken pains to cover every shadow of a shade in his claims, the range of construction is limited and he must be held strictly to language which he has adopted with such painstaking deliberation and exactness."

The claims of patent No. 424,695, here before the court, were divided into five groups, each covering a separate feature. This would be an average of seven claims to each of the distinct features covered by this patent.

In Bellows *vs.* United Electrical Manufacturing Co. et al., 160 F. R., 663, the court had before it patent No. 812,183, which contained twenty-eight claims, and remarked in passing:

"The devices of the patent have been obscured by a multitudinous number of claims, most of them wholly superfluous and the result of a long controversy with the Patent Office on matters of detail, the inventor presented himself originally with eighteen claims."

In Benjamin Electric Manufacturing Co. *vs.* Dale Company et al., 141 F. R., 989, the court stated:

"The result of this repeated addition of claims to the pending applications is that the patent No. 721,774 now contains 46 claims, and the patent 721,777 contains 17 claims, making 63 in all. Many of these claims are substantially identical, and the excessive number of distinct claims inserted in the patent, most of which are expressed in substantially indistinguishable terms, serves no useful purpose, and simply makes burdensome the investigation of the claims."

In Computing Scale Co. of America *vs.* The Automatic Scale Co., 119 O. G., 1586; C. D., 1905, 704, the court pointed out certain duplicate claims and commented on them as follows:

> "The specification of the patent ends with eleven claims of which 1, 2, 6, 7 and 8 are alleged to be infringed. It will, however, be necessary to only consider claims 1 and 6. Claim 2 differs from claim 1, barring certain immaterial variations in phraseology, in that it limits the spring-supported load-bearing and cylinder-revolving rod to one that is 'non-rotatably' suspended from the casing. Claims 7 and 8 admittedly do not differ patentably from claim 6, these three claims stating in varying phraseology the same invention—one of many examples of word-painting too often found in letters patent."

In Victor Talking Machine Co. *vs.* Thomas A. Edison, Inc., 221 O. G., 351; C. D., 1915, 50, while discussing patent 814,786, containing 42 claims, the court said:

> "Therefore, claim 23 may be disregarded at once; because, where so many claims are put into a patent, each element in a given claim may be supposed to be especially necessary to the combination. In such a patent, there is little room for latitude of interpretation."

In considering patent 1,060,550, the court further said:

> "Whether this be true or not, the practice is so obviously mischievous that the courts should discourage it as much as possible, as well as the practice which permits forty-eight claims upon a simple and perfectly obvious machine like this. Such claims violate the very purpose of any claims at all, which is to define the forbidden field. In such a waste of abstract verbiage it is quite impossible to find any guide. It takes the scholastic ingenuity of a St. Thomas with the patience of a yogi to decipher their meaning as they stand."

In considering an application which covered both process and article, the Court of Appeals of the District of Columbia said in *In re* Carpenter, 112 O. G., 503; C. D., 1904, 669:

> "The claims, as said by the Examiners-in-Chief, have been unnecessarily multiplied, and during the pendency of the application have grown from two to twelve."

The court considered that four claims were amply sufficient to protect the patentable novelty in the case

In another application, the same court was moved to remark in *In re* Thomson, 120 O. G., 2756; C. D., 1906, 566:

> "The consideration of the merits of applicant's alleged novel combination was embarrassed, and possibly prejudiced, by the great number of claims presented and insisted upon throughout the proceedings in the Patent Office. On this appeal, the applicant has abandoned all of his twenty-one claims except the four following:"

There is no dissenting voice. The courts have uniformly recognized the fact that a large number of claims in a case tends to confuse and mislead the public; renders more difficult the consideration of the patent by those who are called upon to determine its exact scope; in many cases limits the patentee to the precise construction of any claims upon which he may sue for infringement; and in extreme cases may even render the patent void.

As against these disadvantages, not a single redeeming feature has been discovered. The honest patentee who desires a patent that shall protect his real invention, and who wishes the scope of the patent clearly defined in concise and well expressed claims, gains nothing whatever from an undue number of claims.

The patentee who hopes to gain some temporary advantage from a collocation of vague and ambiguous claims, or who imagines that his patent will be given a broader interpretation because of the very difficulty of determining what the claims really mean; or the man

who desires to mislead or "bluff" the public for the purpose of obtaining some temporary advantage, may have an excuse for presenting a multiplicity of claims, but no valid reasons which should influence the Office to allow them.

The position taken by the courts has been followed in the main by the successive Commissioners of Patents. The whole matter received somewhat extended consideration in *Ex parte* Woodruff, 17 O. G., 453; C. D., 1880, 90, where the following clear statement is found:

> "The general doctrine heretofore in vogue in the Office that it is admissible, under proper restrictions, for parties to put their claims in different forms to prevent misconstruction of them by the public or the courts, must be construed, as the Examiner contends, to have reference, not to unnecessary repetitions of claims for the same thing, but to those cases which are difficult of definition, and where one set or form of words would be inadequate to clearly cover the invention and prevent misconstruction. Another difficulty arises from the inability of an applicant to set forth in a single claim the device broadly, so that it will cover all other devices which are the same in principle of operation and therefore equivalents, and, at the same time, the specific device which he has invented and described to carry out the improvement in the art or manufacture. But where the invention is simple in nature and can be clearly stated in simple language and in one claim, there is no justification for setting out the invention in a series of claims which all mean the same thing. Claims are not like counts in pleadings, which are often repetitious of the same cause of action in different forms of language to provide against the hazard of the proofs varying materially from the statement of the cause of action, but they are the conclusion of the specification, and their object is to set forth distinctly and concisely just what the invention is which the applicant asks to be secured him by his patent, and they should not consist of fictitious, redund-

ant, or amplified allegations of matters, by which it is hoped to secure protection for more than the applicant has actually invented or contemplated. Where the terms of a claim in a patent are clear and distinct, as they always should be, no necessity arises for repeating such claim in different forms of language, and subjecting the Office and the courts to great labor in scrutinizing them, and to doubt and annoyance as to their limitations and construction."

Some features of the broad doctrine thus laid down are emphasized and amplified in the two following decisions:

> "But where a simple invention is made the subject of numerous claims, some of them differing in mere methods of expression with no corresponding difference in the concrete subject-matter, the Office should insist, courteously but firmly, that one claim only be allowed for a given subject-matter of invention, and that mere differences in phraseology shall not be regarded when urged in defense of a needless multiplication of claims."
>
> *Ex parte* Johnson, 54 O. G., 505; C. D., 1891, 16.

> "The matter to be determined is not whether the several claims standing alone would be patentable as against the public. It is certainly conceivable that each one of the claims standing alone would be an entirely valid claim, and yet that sound principle would require that not all of them should be allowed."
>
> *Ex parte* Sawn, 54 O. G., 1561; C. D., 1891, 44.

In *Ex parte* Griffith, 85 O. G., 936; C. D., 1898, 233, a very important principle was laid down, and the gist of this decision reads as follows:

> "The tests of patentability are the same in kind as if the claims were in different cases, but are not so rigidly applied, and all doubts should

be resolved in the applicant's favor. . . . This does not mean, however, that an applicant after having been allowed claims which fully and adequately cover his real invention will be permitted to needlessly multiply such claims by the inclusion of well-known elements which do not cooperate therewith to produce a new result or in any manner add to the patentable novelty of the device. Such multiplicity of claims would obscure rather than make clear what the applicant regards as his real invention."

There is probably no one thing which is a more potent cause of the presentation of an undue number of claims in an application than this very practice of aggregating with the real invention a large number of old and common details which have no particular relation thereto and which add nothing whatever to the patentable novelty of the device. By thus applying the laws of permutation, the number of claims drawn on a comparatively simple invention can be increased to a marvelous extent.

Another common cause of a multiplicity of claims is that of a variation in phrascology without any corresponding variation in subject-matter, which practice is criticised in *Ex parte* Hoegh, 100 O. G., 453; C. D., 1902, 254.

"This invention is a very simple one. It is impossible to draw fifty-three claims on the simple structure which is disclosed without making many duplicates. All reasonable latitude should be allowed an applicant in presenting claims in order that the patent when issued may afford him full protection. In this case, however, the large number of claims presented by the applicant is not only unnecessary, but unreasonable.

"Claim 1 covers the combination, with the tool-support, of means for clamping a tool in said support. Claim 2 covers the same combination expressed in different words, in that the 'means' for clamping the tool in claim 1 is defined in claim 2 as means for releasing the tool. If a tool is clamped to a support, it follows that if it is

> to be released from the support, it must be unclamped.
>
> "Claims 1 and 2 therefore cover by means of different words the same construction, and but one of these claims should be presented."

The practice thus condemned is a very common one, and often one of the most difficult to detect without a very close consideration of the claims. It is perfectly proper for an applicant to apply generic and specific terms to an element in different claims, but he should not be permitted to multiply claims which differ from each other only by the use of terms of exactly the same scope applied to the same elements.

An instance is recalled in which the claims covered an escapement mechanism comprising a pawl and ratchet. The pawl was referred to in different claims as a "pawl," "detent," "dog," "tooth," "member," and one or two more similar terms, all of which had exactly the same scope in the art.

Claims which differ in such fashion alone are undoubtedly duplicates. The use of such varying phrascology merely tends to confuse and serves no good purpose whatever. Applicant should select the broadest or most common term, and use it consistently throughout the claims.

Affirming and amplifying the principle laid down in *Ex parte* Griffith, supra, is the decision in *Ex parte* Riley, 101 O. G., 1832; C. D., 1902, 416, which reads in part as follows:

> "It has long been the practice of the Office to reject the claims in one case upon the allowed claims in another case filed by the same applicant where there is no patentable difference between them. . . . Although it is true that all of the reasons in such case for the rejection of the claims do not exist where they are all presented in one application, nevertheless there are good reasons for refusing to permit a party to needlessly multiply his claims by alleged combinations of the real inventions with other elements where the alleged combinations are mere aggregations

> or where they involve mere double use of the additional element with the real invention. . . .
>
> The only way to treat such claims is to reject them, and in such rejection no objection is seen to referring to the fact that claims to the real invention have been allowed in the case."

Along the same line is the decision in *ex parte* Chapman, 120 O. G., 2446; C. D., 1906, 79, where an application containing twenty-six claims was under consideration. The more important portions of this decision are:

> "The courts have frequently condemned the practice of needlessly multiplying claims. . . . The applicant himself gains no advantage by a needless multiplicity of claims; but, on the contrary, it may lead to a limited and strict construction of his claims. . . . Not only may a needless multiplication of claims lead to a strict construction thereof, but it may in some cases render the patent void. . . .
>
> It is clearly the duty of this Office to see that patents do not issue with claims so multiplied as to embarrass and confuse the public. It should allow sufficient claims to amply protect the real invention, but should not permit needless repetition."

And finally, the same basic principle has been recently re-affirmed by Commissioner Ewing in concise and pertinent language in *Ex parte* Whitelaw, 219 O. G., 1237, as follows:

> "The claims held patentable are considered as fully covering applicant's invention, and applicant can not be permitted to multiply his claims by presenting alleged combinations which distinguish from the real invention only by including elements which are old in the art and perform no new function."

It appears that the Office and the courts are in substantial agreement upon this matter. And as a general principle, it is believed that the majority of attorneys

will admit that the objections above set forth to a multiplicity of claims are proper and valid.

Some years ago, in an infringement case involving certain typewriter patents, the counsel for defendants made reference to one of the patents under consideration as containing—

> "Actually, 81 claims (claims blurred and blind in a rainy season of words, built up in a sort of house-that-Jack-built order, and ringing the changes on fiddle-dee-dee, . . .)."

The real humor of this lies in the fact that at the very same time counsel for defendants was prosecuting in the Office an application relating to a similar machine, and was exerting every effort to obtain the allowance of over three hundred claims therein.

It therefore appears to be well settled and agreed upon by all concerned that a needless multiplicity of claims should not be permitted. The broad principle is definite and undisputed. However, when it comes to the application of this principle to specific cases, manifest and manifold difficulties arise.

Every applicant is willing to admit freely that there should not be too many claims in an application. Every applicant is probably willing to admit that certain patents and applications contain too many claims. But where will you find an applicant who is willing to admit that his application contains too many claims?

Whenever an applicant is required to reduce the number of claims in an application because of multiplicity, or whenever any of the claims are rejected as being substantial duplicates, he is prone to urge that the cancellation of any claims on this ground may be found to deprive him of a portion of the protection to which he is rightfully entitled.

Such arguments are often reinforced by the citation of the decision of the Supreme Court of the United States in the case of The United States Repair and Guaranty Co. *vs.* The Assyrian Asphalt Co., 98 O. G., 582; C. D., 1902, 575.

In the proceedings which led to the grant of patent 501,537, under consideration in this decision, the Office

rejected claim 3 as being a substantial duplicate of claim 1. Applicant thereupon canceled claim 3.

The court held claim 1 invalid, and held further that it could not be sustained by limiting it so that it would be substantially the same as claim 3, which was canceled, because applicant was bound by his voluntary cancellation of that claim.

Where an applicant cancels a claim in view of the prior art, he is bound by that act, and after the patent has issued he can not urge that any of the patented claims should be construed to cover substantially the same subject-matter as the cancelled claims.

But where an applicant cancels a claim because it is a dupliate of another claim in the case, it does not appear that he has relinquished anything. The point to be determined is whether the two claims really are duplicates or not. In the case above cited, the court virtually held that the Office was in error in considering the claims dupliates.

But because an error was made by the Office in holding that these two claims were the same in substance, is not a valid reason for permitting all subsequent applicants to claim the same invention in different phraseology.

It merely indicates the advisability of careful consideration of the question of duplicity, and emphasizes the fact that the applicant should draw his claims so carefully as to set forth the real invention in clear, accurate, and concise terms.

While each case demands separate consideration, and the proper number of claims varies with the complexity of the device, the development of the art, and various other factors, nevertheless there are certain tests or rules which may be applied with substantial uniformity, and which will facilitate the solution of the problem.

Claims which differ only in the introductory clause are manifestly duplicates. An application for a lantern was once filed containing approximately eighty claims divided into four groups which differed only in the introductory clause. These groups began respectively: "In a lamp, . . .;" "In a lantern, . . .;" "In a signal lamp, . . .;" and "In a signal lantern, . . ."

At one time it was not uncommon for an applicant in

the typewriter art to attempt to distinguish one claim from another by reciting in one claim: "In a front strike typewriting machine, . . ." while the other claim read: "In a typewriting machine, . . ."

Generally the duplication is more carefully concealed and rests on more subtle considerations. An application is presented for a tabulating mechanism for a typewriter. One claim recites: "In a typewriting machine, the combination of a platen, . . .," etc. Further on, another claim is presented which is identical with the first claim except that it begins: "In a typewriting machine, a rotary platen, typebars which strike upwardly and rearwardly against the platen, . . .," etc.

Such claims are duplicates. So far as the invention is concerned, it is immaterial whether the platen is rotary or not, and equally immaterial whether the machine is front-strike, top-strike, or bottom-strike. Such limitations add nothing whatever to the real invention set forth in the claim, but merely aggregate with it old and well-known details.

But whenever such claims are rejected on the ground of duplication, the applicant with a greatly aggrieved air presents the argument that his invention is applicable to various types of machines; that one claim is limited to one certain type while the other is broader because it is not so limited, and that the Office, for this reason, should allow both claims in the absence of any anticipatory art.

Such an argument tacitly ignores the real issue, which is that these extraneous elements have nothing whatever to do with the real invention. If the broader claim is allowable, it furnishes ample protection. If the broader claim is not patentable, the addition thereto and the recital therein of certain old and well-known elements of a typewriting machine, which do not in any manner cooperate to produce the real invention, can not possibly make it patentable. In either case, one claim is entirely superfluous.

The writer recalls one instance in which three claims were presented which were identical, or practically so, except that one claim called for a rotary platen, one recited merely a platen broadly, and the third omitted

any mention of the platen. With the invention disclosed in the case, the platen had nothing whatever to do.

There are certain types of mechanism in which parts are duplicated. For example, the two ribbon spools of a typewriter, or the two headlights of an automobile. In dirigible headlights, in which the lamps are mounted to turn in unison with the front wheels, it is common to provide a separate train of connections from each lamp to the steering mechanism. These trains of connections are duplicates.

Nevertheless, in such devices, a claim is frequently presented which recites one train of connections in detail, and another claim which merely pluralizes each element of the first claim, and is intended to cover the two identical trains of connections, although they have no structural relation.

Both of these claims ought not to be allowed. The invention resides in the train of mechanism and not in applying two or more headlights to an automobile and providing each with connections to the steering mechanism, since this is old and common. If a certain combination of elements is not patentable, merely multiplying each element by two does not make it patentable, while if the combination is patentable, it furnishes complete protection against an infringer who should use two or more of the mechanisms covered thereby.

Two claims which differ from each other only by the inclusion in one of them of the phrase "substantially as described" are duplicates. *Ex parte* Shepler, 102 O. G., 468; C. D., 1903, 17.

In general, claims which differ from each other only by the inclusion of descriptive matter of any sort, are duplicates. In order that two claims shall be distinct and patentably different, there must be a difference in the structure positively recited.

It naturally follows that where the device covered by the claims of an application is capable of performing several functions, claims which differ from each other only by the statements of function attributed to the device, are duplicates. *Ex parte* Jacobson, 107 O. G., 1378; C. D., 1903, 474.

This necessarily follows from the fact that a com-

bination claim is supposed to define structure, and where the structure covered by one claim is exactly the same as that covered by another, the two claims are duplicates, even though they may differ in the functional or descriptive statements attributed to that structure.

There is, however, an occasional case where claims which differ only by functional statements modifying means used as a proper element of a combination claim are not duplicates. Such a condition arises where the structure necessary to produce one function requires more structural elements than that which produces the other function. The flexibility of the term "means" is such that it may cover one or a dozen elements, and the novel structure set forth by the claim determines whether or not it is a duplicate of some other claim.

These special considerations are of comparatively limited value because such cases do not occur with any frequency. What is needed is some more fundamental rule or test that may be applied generally with ease and accuracy.

It should be remembered that a claim may be rejected on prior art, on a claim in an allowed application of the same applicant, or upon another claim in the same application. In all three cases, the tests of patentability are the same in kind. The sole difference is the strictness with which they are applied.

When a claim is rejected on a claim in an allowed case of the same applicant, the line is not so closely drawn as when the rejection is made on the prior art. When a claim is rejected on another claim in the same application, the tests of patentability are applied still more leniently and all doubts are resolved in favor of the applicant. Still the vital point is that the tests are exactly the same in kind in all three cases.

Strictly speaking, each allowed claim in an application becomes prior art against other claims in the same application. It is true that very slight differences are regarded as rendering a claim patentable over another claim in the same case. This is perfectly proper. The point which it is desired to emphasize is that these added details or differences should be novel and not features which are old and well known in the art. They

should also be positive statements of structure and not functional or descriptive limitations.

After the pertinent art has been considered in its relation to the claims of an application and they are found allowable, they should also be considered with relation to each other. If any claims differ only by introductory clauses, descriptive statements, duplication of elements, or details which are old and common in the art, or with rare exceptions functional statements, they are duplicates. Any claim which fails to add something novel to another claim, or does not state the same novel feature in terms of unquestionably different scope, should be rejected as a duplicate claim.

Under the present practice, the Examiner must group the claims that he considers duplicates. See *Ex parte* Kadow, 154 O. G., 1412; C. D. 1910, 79.

In case of extreme multiplication of claims it would relieve the Office of much unnecessary labor, if it were permissible to require the applicant to point out what he considers to be the patentable distinction between the various claims.

It has been held in *Ex parte* Richards, 124 O. G., 2534; C. D., 1906, 403, that the provisions of Rule 68, which require an applicant when amending to point out the patentable novelty and show how the amendments avoid the references and objections, apply to amendments presenting new claims.

Where the applicant unduly increases the number of claims by amendment, proper compliance with Rule 68 requires him to point out how these new claims avoid the art and objections, and also how they differ patentably from each other and from claims previously in the case. Amendments which fail to do this should be held unresponsive and insufficient to save the case from abandonment.

If applicants and their counsel understood that the provisions of Rule 68 would be strictly enforced in this respect there would not be such a marked tendency to file additional claims each time the case is amended.

In *Ex parte* Iagan, 162 O. G., 538; C. D., 1911, 10, claims which were unduly prolix and descriptive were condemned and regarded as unpatentable, because for

that reason they failed to "particularly point out and distinctly claim" the invention as required by the law. This decision quoted from *Ex parte* Lawrence, C. D., 1869, 83.

Cases not infrequently arise in which an applicant unduly multiplies the claims by resorting to the practice of making each claim slightly more specific than those preceding, until the narrowest claim could be infringed only by an exact duplicate of the device illustrated.

In such cases, a common sense application of the principle laid down in *Ex parte* Ingan, *supra*, would operate to reduce the number of claims.

Notwithstanding the forcible manner in which the courts and Commissioners have expressed themselves upon the question of multiplicity of claims, the examiners frequently do not attempt to apply the principles laid down in published decisions, because of a more or less well-founded belief that a rejection on the ground of multiplicity or duplication of claims will not be sustained on appeal.

Some years ago a three party interference was declared involving a relatively simple type-bar bearing. The interference as declared between two parties contained thirteen counts. A motion to amend was brought under Rule 109, adding twenty-five counts. Although this was refused entry by the Primary Examiner on various grounds, one of which was that the number of counts in the interference as declared was amply sufficient to determine all questions of priority, he was overruled by the Examiners-in-Chief.

Thereafter a further motion to amend was brought under Rule 109, adding sixteen counts. This was refused by the Primary Examiner, and again he was overruled.

The interference was then re-declared between three parties, Hagerstrom *vs.* Josleyn *vs.* Hulse, Intf. No. 29961, with forty-eight counts on a structure which probably could have been covered amply, and in all patentable details, by one-third of that number of claims.

This brief statement of the facts in this case is sufficient to indicate what a large amount of time and labor was wasted in the prosecution of this interference because

of the presentation by the parties thereto of an undue number of claims.

Since the holding that two or more claims are duplicates, or that a group of claims is objectionable because of multiplicity, is a matter that relates to the merits, it is appealable to the Board of Examiners-in-Chief. *Ex parte* Chapman, 120 O. G., 2446; C. D., 1906, 79. Therefore the Office action should ultimately take the form of a rejection.

If the Examining Corps would apply consistently the principles laid down in the decisions hereinbefore cited to all cases in which they are obviously applicable, it is believed that the average number of claims presented in an application would decrease to a marked extent in a comparatively short time. Much valuable time would be saved by the Office in the prosecution of an application; the resulting patent would afford the patentee better and more certain protection; and the public would be more clearly and exactly informed as to what the patent covers.

November 16, 1916.