> forests for his shelter. Beyond what nature thus spontaneously provided, he could not pass without employing his inventive skill, and every step in his material advancement has consisted in the creation of new means by which his constantly suggested wants could be supplied. The process by which he first generated artificial light or heat was thus as truly an invention as his last conquest over the difficulties of petroleum or electricity: the first rude car, on which he carried burdens previously borne upon his shoulders, embodied his creative act as fully as the ponderous engine whose glittering wheels transport the wealth of nations across continents with ceaseless energy and lightning speed.

It is thus made clear that for ages man has used certain instruments for what he has believed to be his welfare. This use has led him to conceive of certain conditions which he has believed would contribute still more to that welfare. There has followed naturally a study of the instruments at his service to determine why these instruments were not capable of producing the newly desired conditions, an endeavor to discover precisely wherein the instruments were defective, and what would cure the defect. The discovery of new uses of the instruments concerned or of structural modifications of the instruments whereby their use would produce the newly desired condition was a conception. So also, the discovery of how the supply of a known instrument could be increased without an increase in the expenditure of the force necessary to produce the instrument was a conception; as was the discovery of how an instrument which had lost its full efficiency could be operated on so as to restore that efficiency wholly or partly.

But a conception is only a definite idea. And an idea is not an instrument or a use of an instrument. There must be such an embodiment of the conception as produces a process or an instrument capable, in its turn, of producing the desired improvement.

It may be that the conception is sufficient, since there may be at hand processes or instruments which without

change are recognized as capable of producing the conceived instrument or of carrying out the conceived process, so embodying the conception.

But it may be that such capacity to embody does not exist in known processes or instruments in their precise form. If change in their form is necessary, every definite and successful idea of the changed process or instrument is in its turn, a conception.

The ultimate object, then, is the use of instruments for the supposed welfare of mankind. Mr. Robinson says:

> "An art or operation is an act or series of acts performed by some physical agent upon some physical object and producing in such object some change either of character or condition."

And, on page 25, of vol. 1, he says:

> "The elements, the earth, animal creation, the members of the human body, are as available as the machines and chemical compositions which have resulted from inventive skill. Their action may be positive or negative—working their changes in material objects by adding to, or altering their quantity or qualities, or by subtracting or suspending attributes which otherwise would hinder a desired result. To the inventor of an art the entire universe thus offers itself as his armory, and all the works of God and man are ready to become his instruments."

Man's welfare appears to him to lie in a satisfactory physical condition and in pleasurable sensations. So he uses a multitude of processes and instruments to supply himself with food and pleasure. For example, he ploughs and cultivates the soil to improve it as an instrument to cooperate with the seed and the elements in producing food, the food thus produced becoming in its turn an instrument for supplying nutriment to the body in order to restore the body to its normally active condition as an instrument for use in daily life. He is constantly restoring the desired efficiency in himself or his apparel, or other property, by shaving his

face, cleaning his clothes, or the streets, repairing his house, etc.

Another multitude of instruments contribute to his mental and moral development and to his pleasure; e. g., books, schools, lectures, sermons, toys, theaters, etc.; or to his combined physical act mental welfare, as automobiles, sports, etc. The desire of man that instruments or their uses may be improved, in order to better promote his welfare, is in some countries so great that patent systems have been established to encourage such development. In such a patent system every physical thing from the paper used in an entrance examination in choosing workers to the paper on which the patent grant is impressed is an instrument, and every bodily or mental act in the use of these instruments is a process.

Indeed, it may not be an exaggeration to consider the earth and its fullness as an instrument used by man so far as he recognizes its capabilities, for his welfare, and that a cargo of food carried from New York to Liverpool is but a process performed on a part of the earth's equipment and using the ocean, the vessel, and its propelling means as apparatus, to improve the earth as an instrument.

As therefore every process produces in an object "some change either of character or of conditions," and considering what is stated above, apparently every process either produces a new instrument, or produces an old instrument in greater quantity with a given expenditure of force, or endeavors to restore an old instrument to something like its original character. And all these instruments are products. It seems reasonable therefore to consider that a product is the "broadest" embodiment of the inventive act, and that the actual primary conception is of an improvement in the relation of some product as an instrument concerned with what is believed be the welfare of some person, or persons, and this improved relation of the product is produced by a process, the process needing apparatus, sometimes mechanical, to carry it out. If so, processes and apparatus are, so far as concerns the product, only factors in providing the relation. On the same principle a conceived process

is a "broader" thing than the apparatus which carries out the process, so far as concerns the embodiment of the conception; and a conceived apparatus, in its turn, is "broader" than the process or apparatus concerned in the production of the conceived apparatus.

The conception may be of a new product or of a new process, or of a new apparatus, or of a combination of them. This condition may be tabulated—

	Product.	Process.	Apparatus.
1	New	Old	Old
2	Old	New	Old
3	Old	Old	New
4	New	New	Old
5	Old	New	New
6	New	Old	New
7	New	New	New

Condition 1 is, of course, the commonest. The conception of the product is sufficient, as there exist processes and apparatus capable, without change, of embodying the product conception.

Conditions 2, 3, and 5 are concerned with cheapening or repairing a product.

Condition 4 exists when a process must be modified or discovered to embody the product conception.

Condition 5 exists when an apparatus must be modified or discovered to embody the process conception.

Condition 6 exists when a modified or discovered apparatus is necessary to embody the product conception.

Condition 7 exists when both a process and an apparatus must be modified or discovered in order to embody the product conception.

In every case there is a conception of something new, and in every case the factors which contribute to the embodiment of the conception are necessarily subordinate to the new thing conceived, so far as concerns the act of embodying that conception. If the thing conceived is a product the process and apparatus concerned in its production are subordinate to the product, as to the act of production. If the new thing conceived is a process the apparatus for carrying out the process is subordinate to the process as to the carrying out of the

process. If the thing conceived is apparatus, the apparatus itself becomes the desired product and the process and apparatus concerned in the production of the conceived apparatus are subordinate to the conceived apparatus.

Every new thing resulting either from the primary conception or from a subordinate conception is thus a new act or instrument taking its place with acts or instruments already known, is added to the "sum of information" possessed by those skilled in the art.

Now it may easily happen that when a process is conceived as a factor in making a conceived product, or an apparatus is conceived as a factor in carrying out a conceived process, one skilled in the art may immediately recognize that the conceived process has capabilities by virtue of which the process may be used as a factor in making other products, or that an apparatus conceived as a factor in carrying out a conceived process may be used as a factor in carrying out other processes. Indeed, this latter condition is common. An apparatus conceived for the purpose of carrying out a conceived process may be of much more commercial value than the conceived process, because the apparatus may be capable of use as a factor in many processes. But as to every process in which it may be used it is subordinate to that process.

The same relation exists as to product and apparatus in conditions 6 and 7 above, in which the product is new and the apparatus is new. The apparatus involved in the production of the product is only a factor in that production. However wide the use of the new apparatus as an instrument may be compared with the use of the new product as an instrument, as to the act which embodies the conceived product the apparatus is only a factor. There was probably a time when buildings had joints fastened by wooden pins. A defect in such a building might be traced to the joint. The defect in the joint might be traced to the wooden pins. The conception of an improved building might lie in the substitution in the building, of a metal nail for the wooden pin. Instantly it might be perceived by one skilled in the building art that such a nail would be much more valuable than the building itself, because of the in-

numerable uses to which a metal nail may be put. But as to the improved building, the metal nail had only the precise relation of the wooden peg; it was merely a factor in the production of the building. And wherever the nail should ever be used it would be only a factor in the production of the thing of which it formed a part.

The well-known case of Underwood et al. *vs.* Gerber et al., C. D., 1893, p. 340, presents a similar condition. The inventor wanted to improve the relation of carbon copy-paper to the public by lessening its cost or improving its quality. The known carbon paper was composed of tissue paper coated with a coloring material. This paper might be modified by modifying the tissue paper, or modifying the coloring material, or modifying the manner of applying the coloring material to the tissue paper. The inventor chose to modify the carbon paper by modifying the coloring material. His conception, therefore, was of a carbon paper having on it what he believed to be an improved coloring material.

He knew of no coloring material which would produce a carbon paper having the conceived qualities, and so it was necessary for him to conceive and embody a new coloring matrial. The mode of application of the coloring material to the tissue paper was the old mode, so that no conception was needed as to that art.

Thus the new carbon paper was a modified instrument, the tissue paper and the coloring material were parts of the apparatus employed, and the paper, the coloring material and the process of application were all only factors in the production of the new instrument. Whatever uses the tissue paper, the coloring material or the process may have had in other relations in the arts, the relation of these things to the carbon paper was the same. They were all subordinate to the more complex instrument.

An art may be, indeed usually is, so developed that the conceived instrument belongs to a type of instruments known to have a variety of uses, which uses the inventor has in mind. Nitroglycerine may have been so invented. But nitroglycerine is of no use at all until it exerts one of its activities, and as to each of its activities, whether exercised in a projectile, in blowing up a stump,

or in stimulating the heart, it is only a factor cooperating with other factors to produce the desired act or instrument.

In the sense indicated, then, a product is "broader" than a process or apparatus concerned in embodying the product, and a process is "broader" than an apparatus concerned in its embodiment, because the things concerned in embodying the conception are only factors in the embodiment, and so are subordinate to the conception.

Also in the same sense, a product is "broader" than a process or apparatus concerned in making the product, because theoretically, a product may be made by more than one form of process or apparatus; and a process is broader than an apparatus for carrying out the process, because theoretically, a process may be carried out by more than one form of apparatus.

Thirdly, for the reason just stated, in our Patent Law a product is "broader" than a process or apparatus concerned in making the product because the law protects the product regardless of the factors concerned in making it; and a process is "broader" than an apparatus concerned in carrying out the process, because the law protects the process regardless of the factors concerned in carrying it out. It is the relation of a factor to the particular art or instrument in which the factor participates that dominates the phase of Double Patenting under discussion, as to that act or instrument, and not the capacity of the factor to participate in other acts or instruments. I think it will be seen that this distinction is not academic.

A conception such as has been referred to herein may apparently belong in either of three classes.

The conception may be such as occurs constantly in every day work, merely one of those ideas wholly within the ordinary skill of the conceiver, and capable of embodiment within that skill. It results only from the exercise of what Mr. Robinson calls the "initiative faculties," and is a natural manipulation of things within the "sum of information" of the conceiver.

Or, the conception may be of such nature relative to the precise "sum of information" of the conceiver, that as to that "sum of information," he exercises the creative faculty, and performs a genuine act of invention,

although unknown to him some one else has already performed the act.

Or, lastly, the conception may be of such nature relative, not only to the "sum of information" possessed by the conceiver but to the "total sum of information," that possessed by persons collectively, that not only has an act of invention been performed, but is performed for the first time. Its embodiment has added to the "total sum of information."

In the first case there has been no act of invention; in the second case the inventor was not "the original, first inventor"; in the third case, the inventor is the "original, first inventor." I think it is the condition of the second case which has led to the test in section 4886, which implies that a person can not obtain a patent because he has invented something, but the invention must be "not known or used by others before his invention thereof," etc., and that has led to the requirement in section 4888 that the inventor "shall particularly point out and distinctly claim the particular improvement or combination which he *claims* as his invention or discovery"; that is, he shall definitely state the extent of the monopoly to which, from his "sum of information," he believes himself entitled; later sections of the statute direct the Commissioner to "cause an examination to be made" to determine the extent of the monopoly actually due to the inventor in view of the "total sum of information" assumed to be possessed by others.

Most patent systems have been devised to protect only the results of conceptions of the third class, those the results of which add to the "total sum of information." From these productions the various systems select certain acts and instruments as worthy of reward by monopoly or otherwise, and certain definitions are formulated in the laws or in the practice of the laws within which definitions rewarded inventions must fall. Our own system collects all acts in the term "art," and divides instruments into machines, manufactures and compositions of matter.

We may now consider the bearing of all this on the phase of Double Patenting under discussion, which

phase is concerned, as has been stated above, with the presentation by the same party of a plurality of applications with the same precise disclosure but with different claims. For convenience the plurality considered will be two:

Both applications may disclose a generic idea, either a product or a process, and a specific embodiment of the generic idea; or they may disclose a product and a process or apparatus for making the product; or a product and a process of using the product; or a product or process as a combination, and an element or subcombination product or process, which is a part of the combination; or a process and all or a part of the apparatus for carrying out the process. And one application claims one of these disclosures and the other application claims the other of the disclosures.

I believe the problems involved may be most easily solved if the things defined in the respective claims are considered as *different things* bearing a certain definite relation to each other, the study of which relation will determine the proper course of action; instead of calling these things the same by using such expressions as "the same invention," and other expressions which appear in the decisions to be quoted. That is, to consider as different things, a generic idea and its embodiment; a product and the process of making or using the product, or the apparatus for making the product; a combination, and a part of the combination, a process and the apparatus for carrying out the process, or a part of such apparatus.

Manifestly, any language which will most clearly define the problem and point to its solution is preferable to language which because it has no rigid definition, may obscure the problem and its solution. Especially would this seem to be the case if a single definite expression and a single clear line of consideration can be applied to all forms of the problem.

Of the different statutory classes a machine, manufacture and composition of matter are products; an art is a process.

As implied above, inventions may be claimed as: products, processes for making products; processes of

using products; combinations and elements or subcombinations; apparatus for making products; processes per se; apparatus for carrying out processes; parts of such apparatus.

The deductions in this paper are based on the belief stated above, that a product is "broader" than a process or apparatus for making the product, that a combination product or process is "broader" than an element or subcombination therein, and that a process is "broader" than an apparatus for carrying out the process or a part of such apparatus.

That is, a thing conceived is "broader" than the means for reducing the conception to practice.

The grant of a patent gives to the grantee, in terms, the exclusive right to make and use (and vend) the "invention." In the case of a product the grant appears to be actually to the exclusive right to make and use (and vend) the product, as the grant states; while in the case of a process the actual grant appears to be the exclusive right to carry out the process (and to vend that right).

A patent being granted as a reward for the disclosure to the public of a (patentable) invention, to be used by the public at the pleasure of the grantee, the grant ultimately to pass to the public, it follows that the information furnished in the patent only, or such information plus what is already known, must be sufficient to enable the public, represented by one skilled in the art concerned, to exercise all the privileges of the grant; comprising in the case of a product, the capacity to make and use the product; and in the case of a process, the capacity to carry out the process.

It is usually the case that one skilled in the art can make and use the newly discovered product without the disclosure in the patent of any process or apparatus for making the product, or of any process of using the product. And it is frequently, perhaps usually, the case that a newly discovered process can be carried out by hand in known ways or by known apparatus.

But it may happen that the extent of the known art is so meagre that *the only known ways to exercise one or more terms of the grant are those disclosed in the applications for the patents.*

This would be the case:

1st. When the applications disclose a generic idea, involving either a product or process, and embodied, "reduced to practice," in a single species. Because, the generic idea being new the known art can contain no specific embodiment of it.

2d. When the applications disclose a new product and a process of making the product, and the disclosed process is the only process by which one skilled in the art can make the product.

3d. When the applications disclose a combination product or process and an element or subcombination which participates in the combination and the combination can only be made with the disclosed element or subcombination.

4th. When the applications disclose a process and an apparatus for carrying out the process and the disclosed apparatus is the only one known by which the process can be carried out.

5th. When the applications disclose a process and a product forming part of the apparatus for carrying out the process, and the disclosed product is the only one known which can form such part of the apparatus.

Now, under all the conditions just referred to it would be impossible *at the time of the grant,* to exercise all the rights of the grant excepting by the means disclosed in the applications themselves; and, so far as concerns Double Patenting, the Office in granting a patent, *should consider only the conditions existing at the time of the grant, regardless of what may develop in the future as to new species, new processes, new uses, new combinations, or new apparatus.*

It is believed that failure to emphasize this last condition has resulted in a certain amount of injustice to applicant's and to the public.

It has been stated above that a product is theoretically "broader" than a process for making the product, or an apparatus for making the product; that a combination is "broader" than an element subcombination, and that a process is theoretically "broader" than an apparatus for carrying out the process.

If, therefore, two applications vitally related to each

other as above stated should be presented to the Office by an applicant, one application claiming the "broader" invention and the other application claiming the "narrower" invention, and patents should be granted on both applications, Double Patenting would result. But, I believe—and this is the basis of the procedure outlined in this paper as preferable—that the resulting patents would not be for "the same invention," but that the grant in the "narrower" patent would be only a *repetition* of a *part* of the grant in the "broad" patent; and being so, would be a *superfluous* grant to the patentee since he is given the "broad" patent.

A simple example is the grant of a patent for a product and the grant of a patent for the only known process of making the product. The grant for the product gives the exclusive right *to make the product and to use* the product. The grant for the process gives the exclusive right to carry out the process. But the process makes the product. Thus the process grant merely *repeats* the grant in the product patent to the exclusive right to *make* the product.

That also, if later the respective patents should be owned by different parties, there would *be vital conflict between the two patents*; for the reason that the owner of the "broad" patent *could not exercise all the privileges in the "broad" patent without infringing the grant in the narrow patent.*

Further, even though the two patents if issued might always be owned by the original patentee, if either one of the patents should issue before the other, the second patent, although it could add nothing to the information already given to the public in the first patent; would extend the actual monopoly beyond seventeen years.

This last condition is the one most recognized in the Office and the courts, and has furnished most of the decisions on the subject.

I believe the following principle is correct.

> It is the intent of the Patent Law to avoid the grant of two patents varying in scope, when it would result that there could be no possible exercise of all the provisions of the grant in the

patent of "broader" scope without the exercise of the grant in the patent of "narrower" scope.

And this condition applies, whether the inventions disclosed are in the same statutory class or in different statutory classes; whether the applications are presented by the same party, or by different parties; and whether the applications are pending concurrently, or at different times.

Further, the conditions existing at the time of the grant are the only conditions to be considered.

If this principle is correct the obviously proper procedure is to examine the "broader" application without reference to the "narrower" application. The question of patentability of the "broader" application having been determined, the "narrower" application would be examined without reference to the "broader" application. If both applications were considered allowable separately, the two applications would then be compared to determine the question whether Double Patenting would result if both applications should be allowed to become patents. The test as to this question has been outlined above.

If Double Patenting would result both patents obviously, should not issue. The preferable practice, I think, under this condition would be to compel, or at least suggest to, the applicant to choose the "broader" application for his patent, and for reasons to be stated later, it would be still better practice I think, to suggest that the applicant transfer his "narrower" claims to the "broader" application and take out a single patent with both sets of claims.

Consideration of the Office practice of record will, I think, show that consciously or unconsciously such applications have been compared with the art jointly instead of separately, and that their relation to each other has been defined by the use of various indefinite terms which imply that the two things are the same, or ought to be the same, or at least are unpatentably distinct things.

We may consider the various forms of the problem in the order of their arrangement above.

SAME STATUTORY CLASS.

First. The presentation by the same party of two applications disclosing either a product or a process, the two applications having the same disclosure, one application claiming the genus, i. e., the generic idea, and the other application claiming the species, i. e., the specific embodiment of the generic idea.

This condition has been often considered, especially in the Office. Double Patenting under this condition has seldom arisen in the courts because the Office has refused two patents if Double Patenting would result. The reason for refusal has assumed various forms. So early as 1884, Ex parte Holt, 29 O. G., page 171, discussed the question and decided that "the applicant has invented the subject-matter of a narrow claim upon a certain entity and in the same moment of time and as the same sense-concept he has invented the matter of the broader claim," and that therefore "he should not have two patents for the same thing."

This is not believed to be an accurate point of view. It is believed that ordinarily, indeed, perhaps invariably there has been a conception of the generic idea, and that the specific embodiment is only the reduction to practice of that idea.

Ex parte Roberts, 40 O. G., 1887, C. D., 573, year 1887, said:

> "Where the invention is one, integral and indivisible, whether it relates to different parts of a single organization or combination, or process and product, or genus and species, a prior patent which claims or covers part of the whole invention, in legal contemplation, takes the whole invention out of the field of patentability, whether the subsequent applicant be the original patentee or some other person."

This decision extends the idea of the "same invention" beyond genus and species and states that even process and product may be one "integral and indivisible" invention.

Ex parte Mullen and Muller, 50 O. G., 837; C. D., 1890, says as to such a condition, "the lines of division

exist as mental figments only and have no corresponding existence in the concrete subject of invention." This was apparently intended to apply to genus and species, product and process, and process and apparatus. Numerous later decisions have stated the same substantial subject-matter in equivalent terms.

As a variation of these views the court, in Western Electric Co. *vs.* Williams-Abbot Electric Co., 108 F. R., p. 952, said in considering Double Patenting of genus and species:

> "The Gray patent, 309,617, for improvements in telephone call boxes, which claims broadly 'means' and 'mechanism' for automatically breaking and holding open the short circuit during the operation of signalling, the specific device therefor, invented by the patentee, being disclaimed and made the subject of a separate application, is void as to all three of its claims, in view of the disclaimer, which takes out of the patent all that was patentable in the invention, leaving it merely the equivalent of a claim for a function."

What confusion may result from the use of the indefinite word "function" is shown by the conclusion of the court that the *specific* embodiment contained "all that was patentable," whereas the invention was so broad that, apparently, except for the existence of the species patent, the genus patent would have been sustained. This same apparently erroneous idea occurs in the consideration of process and apparatus referred to later in this paper.

Is not the simple procedure outlined above preferable, especially as no indefinite term is needed in defining the issue?

DIFFERENT STATUTORY CLASSES—PRODUCT AND PROCESS.

Now, suppose an applicant presents two applications with the same disclosure, but of things in different statutory classes, the things being a product and a single process for making the product, one application claim-

ing the product and the other application claiming the process.

The relation of a product to the single known process for making it was quite fully discussed in the Office decision, Ex parte Trevette, 97 O. G., p. 1173, and numerous decisions were cited. It is a very interesting case. The applicant disclosed a novel stitched signature seam and a process of making the seam. The Board of Examiners-in-Chief said: "The applicant must have first conceived of the stitched-signature seam. That conception of the new seam was the conception of the entire invention before us. It was the conception of a new and useful article, or part of an article." In a minority opinion from the board it was stated that if the invention "is for subject-matter properly claimable as a process and new and useful, on what ground is it rejected?" and granting that had he made a claim for an article of manufacture "his invention would have been covered. I see no legal reason for refusing the applicant all protection for his invention because he, unwisely perhaps, choses what the Patent Office considers an improper and ineffective way of claiming it."

The Commissioner stated:

> "When the invention is not properly claimable as a process, it is the duty of the Office tribunals to so hold if they be of that opinion. I do not think that the Patent Office should issue a patent containing claims which on their face purport to cover one statutory class of invention when the invention which they do cover in fact belongs to another statutory class."

And, again:

> "A process which amounts to nothing more than the necessary or obvious manner of effecting the production of the article is not patentable."

Also:

> "It is evident, therefore, that the law is well settled on the point that a process which amounts to no more than the mere function of a machine is not patentable. As a corollary to this propo-

> sition it is equally true, as shown by the decisions, that a process which amounts to nothing more than the necessary or obvious manner of effecting the production of the article is not patentable.

At the time this decision was made, 1901, the Office and the courts were less liberal as to the necessary qualities of a process than they have since become—note, e. g., the recent Supreme Court decision in Expanded Metal Co. et al. *vs.* Bradford et al., 143 O. G., p. 683, which declared a process of making expanded metal which was wholly mechanical to be a true process and the earlier view may have complicated the problem in Ex parte Trevette. But did the Trevette problem require for its solution any preliminary consideration other than whether the process disclosed was per se "an act or series of acts," whether it was useful and novel, and whether the claim was in the form of a process. If so, whether it was the duty of the Office, inasmuch as the applicant had also disclosed an apparently novel product, that is, a member of a "broader" statutory class, to suggest that the applicant present a product claim, or perhaps to compel him to do so; and then if the disclosed product could apparently be made only by the disclosed process, to see that the product and process claim did not issue in different grants.

In a later case, Ex parte Kilbourn, 221 O. G., p. 737, claims to both product and process were made in the same application. The decision said:

> "To some tribunals these process claims might, and probably would, express the invention better than the article claims, whereas to others the article claims may express the invention best."

If the theory of this paper is correct, this quotation does not, I think, state the problem in the best form, the only questions being: Is the disclosed process a true process? Is the product patentable? Is the process patentable? Can the product be made by any other process than that disclosed? If it can not, then even if both product and process are separately patentable, claims to the product and claims to the process should be allowed only in the same grant.

Both Ex parte Trevette and Ex parte Kilbourn, etc., concern only one application, but the relation of product and process in them presents a problem so similar to that when the respective claims are presented in separate applications, that what is believed to be the best solution when such claims are presented in different applications is thought to be clear.

In the old case, Mosler Safe and Lock Co. *vs.* Mosler, etc., 43 O. G., 1115, however, the Supreme Court considered a product patent and a separate patent for the only method disclosed for making the product and said:

> "After a patent is granted for an article described as made by causing it to pass through a certain method of operation to produce it—as, in this case, cutting away the metal in a certain manner, and then bending what is left in a certain manner—the inventor can not afterward on an independent application, secure a patent for the method or process of cutting away the metal and then bending it so as to produce the identical article covered by the previous patent, which article was described in that patent as produced by the method or process sought to be covered by taking out a certain patent."

This quotation implies that only one process was disclosed or apparently possible. If so, the process grant seems merely to have repeated a part of the product grant. But if the mere disclosure of the product was sufficient to enable one skilled in the art to make the product by a process patentably distinct from the process disclosed, the disclosed process was only a preferred method; and inasmuch as the product could in such case be fully made without recourse to the disclosed process, there would be no conflict between the grants, or a prolongation of the product monopoly.

It may be thought that, even though the product, e. g., A, could be made by only one process, if it should happen that that process could be used to make a variety of patentably distinct products, e. g., A, B and C, by operating on different materials, separate valid patents could be issued on the product A and on the process,

since the process could be used without making product A. This test is, indeed, occasionally emphasized in patent practice. But the allowance of separate grants would seem to be incorrect if either monopoly could be extended beyond the seventeen years of our system. And such extension would apparently occur if the two patents were not issued at the same time. For if the process patent should issue, e. g., three yeas before the product patent, the process patent could be used to make the product A as well as any other product, so that a monopoly of the product A would be held for three years before the product patent issued, since there would be no other way to make the product. The product patent would protect the product monopoly for seventeen years from its grant. So that if both patents would be valid there is a monopoly of product A for twenty years. If, on the other hand, the product patent should issue, e. g., three years before the process patent when the product patent had expired, the public could not make it without using the only known process and thus infringe the process patent for three years, unless a second patentably distinct process for making the product should be discovered during the life of the product patent. But the Office is confronted with the condition existing at the time of the grant.

Further, if both patents should be granted and should be afterwards separately owned, the apparent anomaly would exist of the owner of the product patent being compelled to pay royalty to the process patentee, while the process patentee need not pay royalty to the product patentee if the process were used to make another product.

PRODUCT AND APPARATUS.

Next, an applicant might file two applications disclosing a product and an apparatus for making the product, one application claiming the product and the other application claiming the apparatus. This condition should receive the treatment outlined above. The condition is, however, almost hypothetical, since ordinarily the process, as a member of a statutory class intermediate the product and apparatus would be claimed also, and the problem assume a different aspect.

A COMBINATION PRODUCT, AND A PRODUCT OR PROCESS ELEMENT OR SUBCOMBINATION FORMING PART OF THE COMBINATION PRODUCT.

In Division 39 a patent was granted for a specific form of packing-ring to be used as a part of a pipe joint. Subsequently an application was filed for a pipe joint comprising this specific ring. Apparently the inventor did not recognize that he had conceived a pipe joint to remedy an assumed defect in pipe joints; that he had reduced the conception of the joint to practice by a process of forming the joint; and had devised a packing-ring as part of the apparatus for carrying out the process. So, perhaps, deciding that because of the possibility that his ring might have uses in other forms of joint, he was getting his best commercial protection by his patent to the ring, he procured such a patent. But the improved joint could not be made without the specific ring. If a patent had first been granted on the joint which was in reality his "broader" invention, a separate patent to the ring would repeat a part of the grant in the joint patent, the right to use the ring being included in the right to make the joint.

His apparently correct course would have been to present a claim to his joint and a claim to his ring in one application. Such a patent would have protected the joint, and also would have protected the ring as to any uses of the ring independently of the joint.

Inasmuch as he first took out the ring patent, a later grant to the joint would have prolonged the monopoly of the joint. Applicant was in the position of one who has invented a process and is allowed by the Office to patent the only apparatus which will carry out the process, the apparatus per se being patentable, and has later filed an application for the process.

The "joint" patent was therefore refused, although the applicant contended that if he had claimed the joint and the ring in one application in any other of the forty or so Divisions of the Office, division would have been required. He also compared the Examiner of Division 39 to the juryman who was pained to see how obstinate

the other eleven members were in not accepting his view. The "joint" application became abandoned.

The Underwood et al. *vs.* Gerber et al. case, discussed above, is another example of the same condition.

Similarly if it should be discovered that a material not before known as capable of being engraved had such capability, the discovery might be patentable, the process might be new or old, and it might require an additional act of invention to produce a tool capable of doing practical engraving work on the material. It might be recognized by one skilled in the art that the newly invented tool would be useful in a wide variety of engraving. Nevertheless, if the new engraved plate could be produced only by the new tool, separate grants to the plate and tool should not be given.

PROCESS AND APPARATUS.

Next, assume that an applicant presents two applications disclosing an alleged process and a single apparatus for carrying out the process, and one application claims the process and the other application claims the apparatus.

This form of the problem appears to have produced the most decisions with the greatest variety, of reasoning or situation, and is clearly the most interesting.

A process in the sense of the Patent Law has been repeatedly, and apparently accurately, defined as, "A series of steps performed on subject-matter to transform it into a different state or thing."

The Patent Law states simply and clearly the requirements for the issue of a process patent. An operative process must be disclosed. If one skilled in the art needs no direction as to the ways for carrying out the process, the disclosure of the process alone is sufficient. If, however, one skilled in the art has not the required knowledge, such knowledge as one skilled in the art does possess must be supplemented by sufficient disclosure in the application to enable the process to be carried out. The statute even then requires a disclosure of only one way to carry out the process and does not specify the form, but demands only sufficiency.

But suppose the forces necessary to perform some or

all of the steps are greater than the forces available in the human or other animal body, even if these bodily forces are transmitted through tools. Recourse must then be had to mechanism capable of receiving and transmitting in a predetermined manner forces greater than can be supplied by man or animals. This mechanism is ordinarly called a machine.

But this condition appears to be wholly incidental, indeed almost accidental, and not to affect the actuality of the process, which may be none the less a "series of steps performed on subject-matter," etc.

Suppose under this last condition, the mechanism condition, there is only one machine known in the art for carrying out the process, or no such machine is known in the art, and the application discloses only one such machine, and this machine is then the only one available in the art. In what way has the applicant failed to comply with the statute so far as concerns the disclosure in a process patent? Further, if the process claim presented in the application avoids known art and is free of interference in the Office, on what grounds can a patent be refused? And what has the existence of a claim to the disclosed apparatus either in the same application or in any other application to do with the applicant's statute-given right to an allowance of his process claim? Is the primary question any other than whether the thing disclosed as a process is in fact "a series of steps," etc.?

Why should the accuracy of the definition of a "process" depend on the number, or the nature of the ways in which the process may be carried out?

Therefore, given the condition stated above, of a single applicant presenting two applications with the same disclosure, of a process and a single apparatus for carrying out the process, one application claiming the process and the other application claiming the apparatus, is it any more than simple justice to the applicant to examine each application as to its form and merits as if the other application did not exist, and, if each application is found per se to be allowable, to determine whether the process can apparently be carried out in any other way than by the single mechanism disclosed, and if not, to inform the applicant that he can not have

claims to the process and to the apparatus in separate grants?

As to process and apparatus, some inventors seem to me to have received unjust treatment, based on vacillating and indefinite decisions, the cornerstone of which appears to have been, and appears still to be, the terms "Function of the Machine."

In 1887 the Commissioner's decision, Ex parte Herr, 41 O. G., p. 462, discussed this branch of the problem of Double Patenting, and deduced the following, as stated in the syllabus:

> "A method or process such as the law recognizes as patentable must have an existence independent of the machine or apparatus by which it is carried out to a result. It must be a method or process that *can be carried out by hand or by various kinds and forms* of mechanism or apparatus. If the act or result is simply that of the mechanism itself so related to it that it can not exist independently, and is the sole utterance of the machine, the supposed method or process *does not exist*. The function of a machine can have no separate existence, and is completely and sufficiently covered by a patent for the latter."

From this condition and others stated in the decision, it was concluded that:

> "It must be regarded as settled by the very highest authority that an apparatus and a process *are separate and distinct inventions*. There is no requirement of law that they must or ought to be comprehended in a single patent, while there are many reasons why they should not be. A claim for a machine or apparatus and a claim for a process should be prosecuted in separate applications, and each when allowed, comprehended in separate patents."

These principles and Rule 41 prevailed in the Office until set aside by the Supreme Court in U. S. *vs.* Stinemetz, in the year 1904, 109 O. G., p. 549. In this decision the honorable court used the semi-magic term, "Function

of the Machine," by that time fully established, to define an apparently new form of blood relationship between the unfortunate process and apparatus, as follows:

> "They may be completely independent. 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 cases the apparatus would be the dominant thing. But the dominance may be reversed, and the process carry an exclusive right, no matter what apparatus may be devised to perform it."

That is, an apparatus may, under some conditions, "dominate" a process, although a process is a member of a "broader" class than the class to which an apparatus for carrying out the process belongs. I don't believe it, in spite of the high source of the utterance.

So the Circuit Court of Appeals in Ball et al. *vs.* Caker et al., 210 F., 278:

> "A process may be patentable, although a mechanism is necessary in carrying it out, and the mechanism may or may not be new or patentable; but a valid patent can not be obtained for a process which involves nothing more than the function of a machine."

Again, in re Tallmadge, 174 O. G., p. 1219, the court said:

> "To constitute such an art it must be capable of producing a beneficial result without the aid of any *particular* mechanism, for where the process is simply the function or operative effect of the mechanism it is not invention but at most the result of one."

This seems to mean that if a series of steps on subject-matter can be carried out by hand or by either of two different mechanisms it is a "process"; otherwise no "process" has been invented but only a machine.

In re Rowe, 192 O. G., p. 195, the court quoted the Commissioner as saying—

> "There can be no doubt that a process and an apparatus for carrying it out may be and very frequently are separate inventions and they may be more or less closely related depending upon circumstances. But it is also true that in many instances where a single invention of a broad nature has been made, there is an attempt to cover the invention by both process and apparatus claims."

The court continued:

> We concur in this statement. An invention is not made different by the mere fact that one is disclosed in a claim for an apparatus and the other one in form of a method or process. "Where one invention is disclosed, but one patent can issue," citing In re Crevaling, 117 O. G., 1167.
>
> In re Crevaling just referred to called the process and apparatus the "same inventive concept."

The cited cases are only examples of many.

How kaleidoscopic the relation of process and apparatus may be made is shown by a curious swinging of the pendulum to the other extreme.

The belief is stated above that in considering Double Patenting the Office should confine its attention to the matter of the application presented, and to the known art. That the problem should be solved without reference to things which may be discovered after the patent or patents are granted. The Office is confronted with a condition and not a theory.

The decision in Century Electric Co. *vs.* Westinghouse Electric Co., 191 F., p. 350, ignored this condition. Division was required in the Office and separate patents issued—one for the process, the other for the apparatus. Contention was made in court that the patents were for "the same invention." It seems to have been agreed

that no other apparatus was known for carrying out the process. Nevertheless, the court said:

> "Moreover, it is probable that an apparatus will be invented which is not the mechanical equivalent of that patented. And the patentee is entitled to the protection of his process against its use by such a subsequently invented machine, and also to protection of his apparatus against its infringement by its mechanical equivalent. Hence, the patents for the process and for the machine by which it may be practiced are not for the same invention, and neither was rendered void by the other."

On this is based the syllabus:

> "Separate patents for a new and useful process and for a new and useful apparatus to practice it may be sustained, although no other apparatus to practice it is known, and although the apparatus can not be used without practicing the process."

That the problem is not properly solved in the way indicated seems clear from the fact that if both patents issued to A, and A should assign one of the patents to B, or should assign one patent to B and the other to C, the owner of the "broad" patent, that to the process, could not exercise the privilege of his grant which gives him the exclusive right to carry out the process, without being in vital conflict with the "narrow" patent which grants the exclusive right to make and *to use* the apparatus.

As to the Function of a Machine, assume that a person from the study of the properties of aluminum discovers a new method of operating on aluminum blanks so as to produce four aluminum cans of a specified type in the time hitherto required to produce one can. According to Robinson's theory in his work on patents, the discovery is of a hitherto unknown susceptibility of an old object, i. e., an aluminum sheet, to a new "mode of application" of a force. Investigating the art for means to carry out the process the inventor finds that a machine already in use for forming paper vessels will,

without change, carry out the process. He does not need, therefore, to perform an additional act of invention to devise an apparatus. Unfortunately for his immediate future as an applicant this known machine is the only one capable of performing the process. He applies for a patent.

Even though the Office acknowledges that he has made a discovery amounting to invention because the properties of paper and aluminum are so different that one skilled in the art would not recognize that the series of steps performed on the paper blanks would be feasible on an aluminum blank; nevertheless, the process must be carried out by a machine, and there is only one machine known which can carry it out. Therefore, if the court practice and language above outlined is to prevail, the alleged process is but a "function of the machine": the process and machine are "one," "integral," "indivisible invention"; the "same sense—or mental—concept," etc. In short, the discovery appears to be not industrial but rhetorical. There is somewhere a Commissioner's decision to the effect that the applicant's path should be "strewn with roses." The immediate applicant's path appears to be strewn with flowers of speech. When a person makes two blades of grass grow where one grew before he is rewarded by the increased output, and honorable mention in essays as a hypothetical case. The inventor of a process for making four aluminum cans grow where one grew before must be satisfied with the increased output alone, because his new process could only be carried out by machinery and by only one form of that.

In the preparation of this paper, the idea occurred that perhaps Mr. Robinson has touched on this particular form of the problem, namely, the precise relation of process and apparatus to each other and to the art. It is treated most exhaustively in nearly ten pages of footnotes, beginning on page 233 of vol. 1.

I believe that if the pracice as to process and apparatus should conform to the principles there advanced, the inapt and inadequate terms cited above, including the high-sounding and perhaps psychologically interesting but vague "utterance of the machine," "sense-concept,"

and "mental-concept" would speedily find their proper and permanent resting place in oblivion, so far as concerns Double Patenting. Earlier in his work Mr. Robinson says that the act of inventing is founded on certain "essential and imperishable truths." The following quotation from this discussion of "process" appears certainly to state one of such truths:

> ". . . The forces of laws of nature and the susceptibility to them of the objects named existed, not by the creation of the inventor, but by the act of God. When the inventor discovered that the latter were capable of being influenced by the former with certain results, and devised a series of operations by which these influences might be brought to bear on these objects, *his conception of the method or process was complete, although no idea of the particular utensils or instruments to be employed had been presented to him.* The reduction of this method to practice, by selecting suitable apparatus or mechanism for carrying out this method, would be, so far as this invention was concerned, the work of the constructor, not of the inventor, *and if the apparatus were wholly new and original with him, yet its relation to the method devised by him would be the same.* As mechanism and apparatus it would be a new invention, but with reference to the method it would still be mere reduction to practice. In every case of invention a method and an instrumentality for employing that method must exist. Where the method is new, it is patentable as a process. Where the method is old and the instrumentality new, the latter may be patented as a machine, a manufacture, or a composition, according to its form. But the method is never the natural force, nor the natural object, nor the instrumentality, but has a distinct legal existence, and if possessing the other necessary requisites is a patentable subject-matter."

Why does not this principle apply equally well to genus and species, product and process, etc.?

PROCESS, AND A PART OF THE PROCESS OR A PART OF THE APPARATUS FOR CARRYING OUT THE PROCESS.

In Division 39 an application was filed disclosing and claiming a method of stopping boiler leaks, which consisted in a specified series of steps of applying a specified compound to the leak. The search disclosed a patent granted to the same person in Division 15 for the specific leak-stopping compound.

The process could not apparently be carried out without the use of that specific compound as part of the apparatus. The inventor may have acted on the same plan as the inventor of the joint and the packing-ring mentioned above, and have thought that because the compound might have other uses than in the disclosed process, a patent to the compound might be more valuable commercially than a patent to the process; whereas, in the sense above defined although a product is "broader" than the process of making the product, a process of using the product is "broader" than the product used in the process, since a process is "broader" than the apparatus which carries out the process and so is "broader" than any part of such apparatus. In the immediate case the apparatus was made up of the compound and the boiler water, the process consisting of so manipulating the compound and the water as to apply the compound to the leak.

A grant to the process would have prolonged the process monopoly. The process patent was, therefore, refused.

A process and a part of the process should be treated in the same way.

There is, of course, possibility that more than two applications may be filed disclosing the same matter, such matter comprised in different statutory classes. There are a series of court cases involving a patent for a sewed shoe, a separate patent for the disclosed process for making the shoe, and a separate patent for the apparatus to carry out the method. The three patents were granted at different times. There are about as many views of the problem as there are decisions. The latter are scattered

through the early O. G.'s and Federal Reporters. At this distance the problem appears to be only to determine whether the shoe could be made by any other than the disclosed process, and whether the process could be carried out by any other than the disclosed apparatus. If the two answers are in the negative, claims to the product, process and apparatus should have been allowed, if at all, only in the same grant.

I believe if a person should invent a composition, and the only use for the composition should be as a brick, and the brick could be made only by the process disclosed and the process could be carried out only by the apparatus disclosed, and the composition, the brick, the process and the apparatus separately avoided known art, that the inventor should have in one grant a claim to each of these things.

There appears to be a growing disposition in the Office to reject one claim on another in the same grant. I think this is a bad habit in connection with a system in which anticipation is by mechanical equivalence, instead of by technical equivalence as in England and Germany; and I think that, at least, in cases such as have been considered in this paper where a member of a "broader" statutory class can only be reduced in practice by a single disclosed member in a "narrower" class the allowance of claims to both members in the same grant is proper. The claim to the "narrower" member is at most only superfluous to the patentee and its existence may enable the patentee to sue a person as an actual instead of as a contributory infringer. Thus, if a patent has a process claim and has also a claim for the only known apparatus to carry out the process, the patentee can sue the maker or possessor of the concrete thing, the apparatus, as an actual infringer.

Also, and this seems to me quite important—as shown by the examples of the packing-ring, the sealing compound and the engraving tool noted above—a "broader" member may be so related to a "narrower" member that claims to the "narrower" member should not be allowed in a grant separate from the "broad" grant; yet the "narrower" member may have many capabilities outside its relation to the "broader" member disclosed. And

a claim to the "narrower" member would, of course, protect it as to all its uses.

Still further, although a claim to a genus fully protects the patentee as to infringement through any species under the genus, and a claim to the species disclosed is superfluous, it is invariably allowed. Yet the relation of product and process, and process and apparatus, combination and element or subcombination, may be no different than that of genus and species. It may be contended that the practice as to genus and species exists because a genus is intangible. But so is a process.

In some places above it has been stated that it be suggested to the applicant that he claim his invention in its broadest form, or that he be compelled to claim it in its broadest form. I believe that an inventor has the legal right to dedicate to the public a part of the monopoly to which he is entitled as fully as he has the legal right to dedicate all of his monopoly, and that therefore the Office should only inform the applicant of the extent of the monopoly to which he is entitled, and if he deliberately chooses to limit his monopoly unnecessarily, the Office should allow him to do it, and should not compel a broader claim.

DIVISION.

It will be seen that this phase of Double Patenting extends to practice in requiring division. Obviously, if two things having to each other the vital relation set forth above are claimed separately in the same application, if division is required or permitted, at least separate patents should not issue. The relation falls under the first class in Ex parte Mullen and Mullen above. If such relation does not exist, the second or third class in Mullen and Mullen applies.

INTERFERENCE.

Further, this phase of Double Patenting extends to interference practice.

When two applications are presented by different parties, one application claiming the "broader" member

and the other application claiming the "narrower" member, and the vital relation stated above exists between the applications, the "broader" claim should be suggested to the "narrower" application. The losing party to the resulting interference should be allowed no claim to either the broad or narrow matter.

MECHANICAL AND DESIGN PATENTS.

Still further, this phase of Double Patenting may apparently be concerned with a relation between mechanical and design patents.

A mechanical device has certain capabilities as a useful instrument. Ordinarily these capabilities may all be exercised by the device without vital dependence on any particular exterior shape or surface configuration. But it is possible that the peculiar mechanical capabilities of the device may be in part or even wholly dependent on its exterior shape or its surface configuration, and for that reason these capabilities are embodied in part or wholly in a specific visible design.

A mechanical device is, therefore, "broader" than an exterior design of the device, since theoretically it may exercise all its capabilities and yet be embodied in more than one exterior design.

The Office grants not only mechanical patents on devices but also patents for designs of such devices if they satisfy certain tests of the law relating to designs.

If, therefore, an applicant should file two applications disclosing devices having the same exterior appearance and one application should claim the device as a mechanical device, and the other application should claim the "design" of the device, and the mechanical device and its "design" considered separately should be patentable, comparison of the mechanical capabilities of the device should be made with its "design," to determine whether this probably rare, but clearly possible, vital relation exists between the two features. If it does exist, both patents should not be granted, because of the principle advanced repeatedly, perhaps monotonously, above; since the "design" grant would be superfluous as a repetition of the "broad" grant; also because if both patents were granted, and should afterwards have different

owners, the owner of the "broad," i. e., "mechanical," grant could not exercise the full privilege of his grant without infringing the "narrow," i. e., "design" patent, and further, because if the patents were granted at different times the monopoly of the "broad," i. e., the mechanical grant might be extended.

The applicant should be allowed only the mechanical patent, i. e., the broadest expression of his invention, or, at least, it should be suggested to him to choose the "broad" grant.

Further, if two such applications should be filed by different parties the practice should provide that it should be suggested to the "design" applicant that he file a mechanical application. After the interference no patent at all should be granted to the losing party.

It will be seen that if two parties are in interference on applications with mechanical claims, and it happens that the mechanical capabilities of the disclosed device are vitally dependent on its "design," a third party, or indeed one of the contestants in the interference might file a "design" application, and procure a patent which during the common life of the "design" patent and the mechanical patent resulting from the interference, would be in conflict with the patent issuing from the interference, unless the "design" patent were secured by the party who afterward won the interference, in which case the design patent would be superfluous.

The suggested practice, however, would not be based on the majority of decisions which have discussed mechanical and design patents with the same disclosure. See the ex parte decisions: Palmer, 21 O. G., page 1111; Lanken, 76 O. G., page 785; Jones, 84 O. G., page 12181; Klenim and Schreiber, 218 O. G., page 603.

It seems curious that certain decisions have chosen the most emphatic language to state the intensity of the vital relationship possible between two mechanical or chemical members even though they are in different statutory classes, and that almost equally emphatic language is used in mechanical and design decisions to state the impossibility of a vital relation between two properties of the same member. "What is truth?"

The decision Ex parte Schulze-Berge, 42 O. G., page

203, on the other hand, stated the true test, I think. It reads:

> ". . . the applicant claims that he has invented a plate-glass which is useful, because while it admits a great quantity of light it practically excludes vision. It is true that this function of the glass depends upon the peculiar manner in which applicant gives form and shape to one of its surfaces, which he claims may be made irregularly and without any design whatever, or it may be made in forms which would be pleasing to the eye, such as designs of figures, but when so made such configuration is a mere incident to the purpose for which the plate-glass is constructed."

That is, the applicant had really reduced his conception to practice in two patentably distinct configurations, and one of the configurations was a "design" within the meaning of the law. The privileges of the mechanical patent could be fully exercised without recourse to the "design."

The court case: Williams Calk Co. *vs.* Neverslip Co., 136 F., 210, stated the apparently proper conclusion that such vital relationship may exist between the mechanical capabilities of a device and its exterior configuration, and mechanical and design patents should not both issue. The device was a horseshoe calk, and apparently the mechanical capabilities of the calk could not be exercised in a calk of another exterior shape.

A perhaps clearer example of such vital relationship is the tread of an automobile tire. It may easily occur, perhaps, indeed, is usually the case, that the mechanical capabilities of the tread can not be exercised except through the precise exterior configuration of the tread, and such configuration may form such a design as falls within the Design Law.

Further, even if the mechanical capabilities of a device are vitally dependent on a part of its "design," still both patents should not issue. The relation is the same as between, e. g., a process and a part only of the apparatus necessary to carry out the process.

Of course, if the conception of a thing can be reduced to practice within the art, and the conceiver invents a reduction patentably distinct from the known art, a patent may issue on the broader member and a separate patent on the invented embodiment of the reduction. Also, if the conception can not be reduced within the art and the conceiver makes two patentably distinct reductions to practice, a broad patent may issue claiming the thing conceived and also one reduction, and a separate patent may issue on the other reduction. This is in harmony with the familiar "genus and species" practice.

The various forms of the problem considered in this paper do not arise often, but the solution suggested may be perhaps likened to the traditional "gun" in Texas, which was seldom needed, but in case of need should be "immediate" and convenient, familiar to the user and easily and accurately discharged.

On the other hand, the problem concerns various parts of the patent system, and so the principle is perhaps to be classed with those things that are "important if true."

I am not sure of the truth of the principle. It was put in practice several years ago in Division 39 with some fear and trembling, because no exact precedent could be found for the precise point of view. But it has so far worked out very nicely with no apparent injustice to the inventor or the public. There have naturally been differences of opinion between the division and the applicant or his attorney as to the applicability of the principle in questions of fact; but it is gratifying to note that even when such applications have been prosecuted by attorneys of the highest standing, the validity of the principle itself has not yet been questioned.

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NON-ANALOGOUS USE

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BY

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Non-Analogous Use

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It is settled by many decisions of the U. S. Supreme Court:

> That the application of an old process or machine to a similar or analogous subject, with no change in the manner of application, 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. (Blake *vs.* San Francisco, 113 U. S., 679-82.)

Such application results in a mere "double use" as defined by Robinson (Vol. 1, p. 351), as follows:

> To almost every operative means uses are possible which depart from the inventor's method of employing it in such essential particulars that they could have originated in an inventive act distinct from and posterior to his, and thus, as uses, constitute separate inventions. And there are other uses, even more widely different from his in their appearance, which nevertheless are, in their essence, merely imitations, of his own, and therefore are embraced in his invention. This latter class of uses long ago received the name of "Double Uses."

If, however, there has been any change whatever in the old process or machine its identity is lost and there can be no technical double use under Robinson's rule. In many cases the courts have not applied the rule so strictly and have held patents to be void on the ground of double use where there were some changes in the

original device, but the changes were not material and the device was substantially the same. In cases of double use, therefore, the process or machine, its operation and function and the result must remain substantially unchanged while the arts involved must be similar or analogous. Varying any one of these elements eliminates the possible double use and the device in qestion may or may not be patentable depending on other rules for the determination of patentability.

In many cases it has been held merely that the "use" under consideration was analogous or non-analogous without applying the terms to the arts.

As indicating the law on the subject, the following decisions are of interest:

Potts *vs.* Creager (155 U. S., 597), as cited in Stearns *vs.* Russel (85 F., 218, 227, 228):

> In that case the patentee had taken the cylinder of a wood polishing machine, containing a series of glass bars, fitted into longitudinal grooves in the periphery of the cylinder, and, discarding the glass bars, had substituted others of steel, and provided the cylinder thus changed with an abutting roller, and then used it, not for wood polishing but for disintegrating clay.

The Supreme Court held the patent valid, saying:

> 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.

In Hobbs *vs.* Beach (C. D., 1899, 372), the Supreme Court held:

> That a machine for attaching gummed strips to the corners of paper boxes is not anticipated by machines for stitching wire or attaching metallic stays, since, although the possibility of adapting

the devices to that use might occur to an ordinary mechanic, it could not be carried into effect without the employment of something more than mechanical skill.

Held further, that a machine for attaching gummed strips to the corners of paper boxes is not anticipated by a machine for feeding, cutting, and pasting addresses, although by strengthening it and changing it in certain particulars it could be adapted for use. While there is analogy there can scarcely be said to be similarity in the functions of the machines.

Held, that the changes in the prior devices to adapt them to perform the wholly different function of the patented machine was a minor part of the work involved, the invention consisting rather in the idea that such change could be made than in making the necessary mechanical alterations.

Where addressing machines had been on the market for many years, and yet it never seems to have occurred to anyone engaged in the manufacture of paper boxes that they could be made available for the purpose of attaching strips to the corners of boxes, Held, that this fact is evidence that the man who discovered the possibility of their adaptation to this new use was gifted with the prescience of an inventor.

In many of the cases as above the result secured in the new application is emphasized as may be seen by the following decisions:

> A mere carrying forward, or new or mere extended application of the original thought, a change only in form, proportions or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results, is not such invention as will sustain a patent. (Smith *vs.* Nichols, 21 Wall., 112-119.)
>
> (C. C. A., 7th Cir., 1915.) The discovery that a described metal alloy in stated proportions when

used as an electric resistance element is far superior to any previously known except platinum, the cost of which precluded its commercial use, with the result of greatly advancing the art, constitutes patentable invention, although the alloy itself was known. (General Electric Co. *vs.* Hoskins Mfg. Co., 224 F., 464.)

The use of a structure for an air brush in painting pictures that is old in an injector oil burner is not double use owing to the great difference in the matter of application. The adaptation of the idea of the oil distributing device to the pencil sized air brush involves several inventive steps.

In this case there was also a slight difference in structure but not sufficient to render the structure "new." (Thayer & Chandler *vs.* Wold, C. C. Ill., 142 F., 776.)

The mere fact that it was old to vulcanize together an inner rubber tube, an intervening fabric, and an outer rubber cover, in the rubber hose art and in the rubber gasket art, does not prove that there was no invention in the application of such a method of construction, with such modifications as must be made, to a pneumatic tire. Although hose pipes and gaskets had been manufactured for years prior to the Tillinghast invention, it did not occur to any skilled mechanic that their method of construction could be successfully applied to the production of a pneumatic tire. (Patent No. 497,971.) (Single Tube Automobile & Bicycle Tire Co. *vs.* Continental Rubber Works, 174 F., 50.)

A machine for wrapping an annulus by a mechanism of an annular shuttle is not an anticipation of a machine for wrapping an automobile tire that was made up of several loose and separate parts which had to be compressed and held together tightly while being wrapped, the latter device involving the solution of a new problem which required changes in prior mechanism.

(William R. Thropp & Sons Co. *vs.* De Laski & Thropp Circular Woven Tire Co., 226 F., 941.)

A light transmitter consisting of a pane of glass having a series of parallel triangular projections or prisms on one side and on the other parallel and uniform convex projections or lenses placed edge to edge is not anticipated by a similar pane of glass in which the only significance given to the convex projections is that they afford a "safe and secure foothold for pedestrians when the glass forms part of a sidewalk." (Daylight Prism Co. *vs.* Marcus Prism Co., C. C. Penn., 110 F., 980.)

Held, that coating a metallic wire with gutta percha for the purpose of making an insulated electrical conductor was not a mere double use of a wire similarly coated to prevent mechanical abrasion but a non-analogous use thereof. (U. S. Circuit Court, Southern Dist., N. Y., C. D., 1878, 440, Colgate *vs.* Western Union Telegraph Co.)

A new combination and arrangement of old parts, whereby spinning—spindles instead of running in rigid bearings are flexibly mounted on the rails, so as to allow of greatly increased speed of revolution, held to involve invention and not to be anticipated by the use of similar devices in centrifugal machines for drying sugar or creaming milk. The two devices are so different in size, structure, and uses to which they are adapted that it is not a case of double use. The object of flexibly mounting the hydroextractor was to prevent the jar and concussion which arise from the great weight of the machine and not to increase its speed as in the patent in suit. (Taylor *vs.* Sawyer Spindle Co., C. D., 1896, 546.)

The Barrell patent No. 636,482 for a drier felt for paper machines involving a double-ply fabric held together by binder warps smaller than the face warps of the plies, held to involve invention over the prior art, although the use of a single ply fabric was old in the same art, and similar

binder warps had been used in carpet making to unite a two ply fabric. (Fitchburg Duck Mills *v.* Barrell, 214 F., 777.)

The art of dyeing and of leather making are wholly unallied, and therefore the doctrine of double use has no pertinency. The question is not whether the agents employed and their influence each upon the other are the same, but whether the same practical result, or a sufficiently related one, is produced in the one case as in the other. In "dyeing and printing on fabrics" and in the "treatment of wools" the end finally accomplished is not at all analogous to that of manufactured leather. The same ingredients may be used to reach the one result as the other; but they are not used for a like purpose. They do not affect the different material in the same way, and the product evolved in the one case is wholly unlike the change effected in the other. The fact that hides are substituted for fabrics or wool and that the thing produced is leather and not dyed fabric or treated wool distinguishes the two processes. (Tannage Patent Co. *vs.* Zahn, C. D., 1896-119.)

But compare:

Where dyes of all kinds, including anilin black, had previously been in public and general use for dyeing all kinds of materials, there was no invention in applying them as distinguished from stains and pigments, to leather. (Electric Boot & Shoe Finishing Co. *vs.* Little *et al.*, 138 F., 732.)

If an inventor finds a chemical substance devoted to a particular use, conceives the idea of applying it to a new purpose, and on experiment discovers that the substance must be treated in a particular way to suit his purpose, which method of treatment is essential to his end, but of less importance in obtaining the prior art results, he may be a real inventor, even though he selects a specific treatment in an occupied field. (Perkins Glue Co. *vs.* Waterproof Glue Co. *et al.*, 223 F., 792.)

"It is entirely clear that the respective uses to which the" machines for holding and dispensing cartridges and cork cabinets cited, "were designed to be put are not analogous to the patent in suit," a device for storing and dispensing individual drinking cups. "The relations between them are remote. A new and valuable result has been produced. The device of the patent in suit has gone into general and extensive use and displaced other devices for dispensing individual drinking cups, and for that matter is the only practicable substitute for the public drinking cup which has yet been found, thereby supplying a recognized want. These considerations are sufficient to turn the scale in favor of invention, when it is in doubt." (Individual Drinking Cup Co. *vs.* U. S. Drinking Cup Co., 220 F., 331.)

The Rembusch patent, No. 937,550, for a screen for use in exhibiting moving pictures and stereopticon views, and consisting of a sheet of plate glass having its back silvered and its front, whereon the picture is thrown by a lantern, ground, was not anticipated by the use in the sign art of mirrors having letters or designs etched or ground on their front. (Rembusch *vs.* Benneth *et al.*, 214 F., 257.)

The use of a composition as a waterproof lining for a reservoir did not anticipate a subsequent patent for a street pavement made of a similar composition. The conditions involved are so materially different as not by any means to make the solution of one the solution of the other. (Warren Bros. *vs.* The City of Owosso, 166 F., 309.)

Where a process is used under new conditions and produces new and extraordinary as well as highly satisfactory results, Held that it must be regarded as patentable. (R. Thomas & Sons Co. *vs.* The Electric Porcelain & Mfg. Co. *et al.*, 111 F., 923.)

Old mechanism, fully capable of a use not then observed, anticipates a later patent for the application of that means to that use. Patentability can not rest on the observation in a given device

of a usefulness not before noticed. (William B. Mershon & Co. *vs.* Bay City Box & Lumber Co., 189 F., 741, 745.)

A device for performing additive subtraction including pivoted levers for throwing carrying pawls out of operation, Held, patentable as involving a new use of old mechanism. The invention resides more in the idea that the change could be made rather than in making the necessary mechanical alterations. (Comptograph Co. *vs.* Mechanical Accountant Co., 145 F., 331,336.)

Under special circumstances, as in the conversion of alternating currents of electricity into a continuous current, where a particular practical application of a known principle proves to be of advantage in the arts, and the thought of making it had not occurred to those expert therein, such application, at times, involves invention. (Westinghouse Electric & Mfg. Co. *vs.* Stanley Instrument Co., 133 F., 167.)

We must not be misled by the apparent resemblance between a device taken from an industry and applied to a new use in another when the original inventor never designed or actually used the device for the purpose to which it has been put. (National Tube Co. *vs.* Aiken, 163 F., 254.)

The use of tenons for securing cover strips to the buckets of a turbine held not anticipated by the prior use of a similar construction in a propeller wheel and in vehicle wheels. "Under the patent law, the inventive faculty resides in the reduction of an idea to practice as distinguished from merely making mechanical alterations, and whenever an old device is put to a new use, and such use produces a new result, a question of fact arises as to whether such adaptation would occur to a person of ordinary mechanical skill." (General Electric Co. *vs.* City of Dunkirk *et al.*, 211 F., 658, 662.)

In others the remoteness of the arts is emphasized.

Where an instrument for measuring alternating currents differs from an alleged anticipatory device

only in proportioning the coils and various parts of the apparatus and reducing to a negligible amount the disturbing effect of self-induction, but thereby the direct current double coil instrument could be so adapted to the peculiar conditions characteristic of the alternating current as to result in a practical instrument for measuring the differences of potential in an alternating current circuit, invention is involved. (Weston Electrical Instrument Co. *vs.* Stevens *et al.*, 134 F., 574.)

Although it is well established that where a particular device is used in one art to accomplish a specific purpose, it is not invention to transfer the same device to another art and there employ it to accomplish a similar purpose, yet this doctrine does not apply where the device sued upon is a glass body for administering volatile liquids and adapted to be held in the hand until the heat thereof volatilizes the liquid, and the alleged anticipation is a laboratory device for determining the specific gravity of highly volatile liquids which, through a defect in the instrument, may discharge a jet of volatilized liquid when held too long in the hand. (Fries *et al.* *vs.* Leeming *et al.*, 131 F., 765.)

Where the invention relates to finger rings, Held that the expedient of forming shoulders within holes in the band with which shoulders on the stud engage would not be suggested to one skilled in the art by a similar construction in street-signs. Street-signs and finger-rings are not in analogous or correlated arts. A large wooden sign would not naturally be taken as a model for the construction of a delicate finger-ring. (In re Weiss, C. D., 1903, 546.)

But compare with the following:

> It does not involve invention to apply to a stick-pin, for the purpose of holding it and preventing its accidental withdrawal, a combination of element which has been used to hold or fasten a hatpin,

window fittings, sockets, straps, lines, brooms, tools, and implements, although it required considerable mechanical taste and skill to reduce the size of the elements of those old devices and change the form of construction so as to produce a small, neat, and, in a sense, useful device to serve a useful purpose in combination with a stickpin. (Capewell *vs.* Goldsmith *et al.*, 138 F., 682, N. Y., 1905.)

A patent covering a successful and useful panel section in a metallic ceiling is not to be defeated by showing a prior bird-cage bottom, tea tray, or coal-vase cover, resembling in mere outline of form the patented panel; these things being wholly foreign to, and not suggestive of, the use to which the patent relates. (Kinnear and Gager Co. *vs.* Capitol Sheet Metal Co., 81 F., 491.)

Whiffletrees and bridges are in arts so remote from brake beams for cars that trusses for either of the former purposes can not be permitted to anticipate or limit the scope of patents for the latter. (National Hollow Brake-Beam Co. *vs.* Interchangeable Brake-Beam Co., C. C. A., 8 Cir., 100 F., 693.)

Certain devices (as nut locks) are common to the arts as a whole because they are adapted for use in many situations. In re Morgan C. D., 1912-481.

In a suit on patent No. 1,052,270, for a demountable automobile wheel rim, it was held:

> Patent No. 4,447, 1846, and No. 405,710, 1889, showing railway car wheel structures with rims intended for being mounted permanently ought not to be regarded as fairly in the prior art under examination. It strikes me that such structures apply to a foreign art. But, if I am wrong in so regarding them, still they could not be claimed to disclose a solution of a problem in the art of automobile wheels. In the car wheel art the object was to get the rim on just as tight as it could be put on and to mount it nearly with

permanency, and in doing so the greatest amount of contact surface was provided between the rim and the wheel body of the car wheel. (Perlman *vs.* Standard Welding Co., 231 F., 453-734.)

As further examples the following devices have been held to be in remote or non-analogous arts:

Railway frogs and suspended electrical conductors. (Thomson-Houston Electric Co. *vs.* Ohio Brass Co., 130 F., 542.)

Lamps and stoves and furnaces. (Schlicht Heat, Light and Power Co. *vs.* Aeolipyle Co., 117 F., 299.)

Clothes driers and tilting drawers. (Rosenblatt *vs.* Fiorer Tablet Trit. Mfg. Co., 106 F., 733.)

Horse rakes and weeding machines. (Hallock *vs.* Davison, 107 F., 482.)

Mechanical and electrical arts. (Gen. Electric Co. *vs.* Bullock Electric Mfg. Co., 152 F., 427.)

Weaving and music. (Kip-Armstrong Co. *vs.* King Philip Mills Co. 130 F. 28.)

A railroad journal and an ancient coin. (Ajax Metal Co. *vs.* Brady Brass Co., 155 F., 409.)

Motors used in steam engines and those used in piano players. (Aeolian Co. *vs.* Hallet & Davis, 134 F., 872.)

A gas pipe in a house and a water or gas pipe under ground. (Worcester County Gas Co. *vs.* Dresser, 153 F., 903.)

Boilers and cooking vessels or soda water tanks. (Monroe *vs.* Erie C. I. Works, 143 F., 989.)

A process of making steel and a process of making nickel and cobalt and their compounds. (A. S. Mitis Co. *vs.* Midvale Steel Co., 135 F., 103.)

A carpet duster and a chimney of a blast furnace. (Patents Selling & Exporting Co., *vs.* Dunn, 204 F., 99.)

A cap for a talcum powder bottle and a cap on a dredge for salt. (Westmorland *vs.* Hogan, 167 F., 327.)

Lamp sockets and bottle caps or thimbles. (General Electric Co. *vs.* Freeman, 190 F., 34.)

Pneumatic tires and hose pipes or gaskets. (S. T. A. & B. T. Co. *vs.* C. R. Works, 174 F., 50.)

The revolving bowl of a cuspidor and a water motor (Justi *vs.* Clark, 108 F., 659.)

Shape rolling and plate rolling of steel (branches but not analogous). (Donner *vs.* A. M. S. & T. Plate Co., 160 F., 971.)

A steel pavement and a lining for a reservoir, a floor or a concrete foundation. (Warren Bros. *vs.* Owosso, 166 F., 309.)

Lathes and drill frames. (*Ex parte* Sheldon, 135 O. G., 1585 (1908)), and—

Devices for topping onions and husking corn. (Vrooman *vs.* Penhallow, 179 F., 296.)

On the other hand the following devices, etc., have been held to be in analogous arts:

Mangles and washing machines. (Benbow-Brammer Mfg. Co. *vs.* Richmond Cedar Works, 149 F., 430.)

Blast furnaces and air locks. (O'Rourke Engineering Construction Co. *vs.* McMullen, 150 F., 338.)

Cutlery polishing and cutlery grinding machines. (Dieg *vs.* Borgfelt, 189 F., 588.)

Resawing and hub mortising machines. (Mershon & Co., *vs.* B. C. B. & L. Co., 189 F., 741.)

Edger and resawing machines. (Ibid.)

A reenforcing band for a phonograph horn and a hoop for a barrel. (Excelsior Drum Works *vs.* Sheip & Vandergrift, 173 F., 312.)

Display rack and meat tree. (Fitzgerald Meat Tree Co. *vs.* Nelson Morris & Co., 142 F., 763.)

A bed slat and a bath seat. (Silver *vs.* Eustis, 142 F., 525.)

Photography and blueprinting. (Elliott *vs.* Youngstown Car Mfg. Co., 181 F., 345.)

Toy banks and animal traps. (Burns *vs.* Mills, 143 F., 325.)

A revolving billiard cue rack and a revolving table or bottle caster. (St. Germain *vs.* Brunswick, C. D., 1890, 333.)

A workman's time card and a car mileage indicator. (International Time Recording Co. *vs.* Bundy Recording Co., 177 F., 933.)

Propulsion of vessels through water and locomotion on land. (In re Faure, C. D., 1890, 425.)

A device for lowering and fastening a window sash and a similar one for similarly operating a grain platform. (Deering *vs.* McCormick, C. D., 1890, 434.)

Whether the arts involved are or are not analogous is frequently a somewhat difficult question to answer. We must be guided by the decisions in particular cases (which usually relate to but two arts) and apply the principles brought out to the case under consideration.

In determining whether arts are or are not analogous the meaning of the word "art" is material. There appears to be but a very general relation between the term and the Patent Office classification. It is commonly used in a much more limited sense than to indicate a main or general class of patents, while in many subclasses there are devices having widely different structure operation and function. We can not safely take a completed device as a guide for if we did there would be few if any arts that would be held to be non-analogous. For example, a modern fully equipped automobile involves features and details coming from a myriad of sources and having but little relation to each other except as steps in the manufacture and parts of the completed machine. It must obviously, therefore, be used in a quite limited sense. Here lies one great difficulty in determining what are analogous arts. How far down shall we go in the dissection of a completed machine to reach a point where we can safely say that we have separated all of the arts involved? (After having settled the matter to our own satisfaction the next higher tribunal may say that we went one step too far or a court in passing on the patent may say that we stopped one step too soon.)

For example take a child's cariole which involves the use of both bed springs and screens of wire netting in certain types of which there are many points of similarity. Such a device would bring together the two arts considered in Locklin *vs.* Buck (C. C. 148 F., 715), in which it was held that:

> The use of a structure to bind the edges of a fabric made of woven coiled wire springs that was old to bind the edges of a window screen is not double use owing to the great difference in the character of the fabrics and the difficulty in application.

The court also noted the fact that six years had

elapsed between the two applications as evidently indicating that the arts were too remote for the transfer to be readily suggestive.

In 159 F., 434, this case was reversed, the court holding that:

> Although the wire fabrics are different, the bed-spring consisting of a series of coils which are flattened in the binding strip, while the fly screen is composed of wires in the same plane, they are not in remote but analogous arts; both relate to woven wire fabrics. The real function of the metallic strip—to bind and hold—is the same in both cases.

Evidently the lower court extended the term "art" in each case to cover the entire manufacture of that particular type of wire fabric while the appellate court limited the term to the binding of the edges thereof. A good example of a limited sense in the use of the word "art" is found in Eisenstein *vs.* Fibiger (160 F., 686), in which it was held that claims for a method of finishing canes of bamboo, etc., by coating them with varnish and baking them, is anticipated by the same method used for japanning other articles, as egg shells, clay pipes, porcelain, steel, iron, and wood. Here the court evidently considered "japanning" an art and not a mere step in making the various articles enumerated, so while limited in one sense it is broad in another, thus covering similar operations wherever found.

Another example is found in the Ransome Concrete Co. *vs.* United Concrete Machinery Co. (165 F., 914), the Circuit Court holding that:

> There is no particular analogy between an apparatus for mixing tea and a machine for efficiently mixing concrete.

This case was reversed by the appellate court in 177 F., 413, which held that:

> The use of a tea mixer for mixing concrete is a mere double use. The changes made in adapting the device for the purpose indicated do not involve invention but mere mechanical skill.

Here the scope of the art as indicated by the result to be attained was evidently viewed from different standpoints by the two courts.

Another example is the National Meter Co. *vs.* Neptune Meter Co. (122 F., 75), in which the Circuit Court held:

> As a matter of applied art, and as affecting the question of anticipation, a water meter and a water motor are not the same—being designed for different purposes—although in structure and general mode of operation they may be the same.

Also:

> The conditions to be met in the case of excessive fluid pressure, such as that from water or steam, and that caused by the expanding power of ice at the moment of freezing, are by no means the same due to the fact that water on freezing loses its mobility, and exerts its force, not as a fluid but as a solid.

But the Circuit Court of Appeals in 127 F., 563, in reversing the lower court said:

> In both instances, however, relief from the injurious effect of undue interior pressure is the object sought, and in each instance an annular groove or recess is formed in the inclosing head to weaken it.

Also compare Jones *vs.* Cyphers (C. C. A., 2 Cir., 126 F., 753):

> The devising of systems of ventilation belongs to a single art, whether such systems are to be applied to a hospital, a sewer, a ship's hold, a cold storage box, an incubator, or any other structure where circulation of air is sought to be secured. Whether houses and incubators are or are not in the same class is unimportant;

and Seegar Refrigerator Co. *vs.* American Car & Foundry Co. (C. C. N. J., 171 F., 416):

> The ventilation of sleeping apartments and state rooms, of sheds for storing coal, and other

like compartments are too remote to be considered in connection with the art of refrigeration and freezing.

EVIDENCE INDICATING REMOTENESS OF ARTS.

The time elapsing between the first use of a device and its transfer to another art is frequently held to be important in indicating the remoteness of the arts. In El. Con. and Supply Co. *vs.* Westinghouse Electric and Mfg. Co., it was held that:

> "The fact that, for eleven years following Beardslee's commutator wheel patent, it does not seem to have occurred to any of those actively engaged in experiments to prevent destructive arcing in electric railway controllers to apply to the solution of the problem the segmented and insulated commutator wheel construction, is convincing evidence that the commutator art and the controller art are not so analogous as to preclude invention in the adoption by Lange & Lamme of their sleeve construction for the purpose of preventing electric arcing in controller drums." 171 F., 83.

Also, in the Drinking Cup case, *supra*, it was held that as the references were granted in 1891 and 1896, while the patent in suit not until 1912, this fact indicated invention, citing Hobbs *vs.* Beach, *supra*.

The patentee may by statements in the specification as to the uses of his invention define or limit the art as indicated in the following decisions:

> Where the specification of a patent for a throttle valve designed primarily as a stop for a steam engine states that the device may be applied to shutting off "steam, air, gas or water," the patentee ought not to object to the citation, as an anticipation, of a patent showing a similar valve used in a water pipe. (Consolidated Engine Stop Co. *vs.* Landers, Frary & Clark, 151 F., 775 (Conn., 1907).

The transfer of a registering device from a gas

meter to an electric meter, Held, to involve a mere double use. The objection that the uses were not analogous entitled to little weight in view of applicant's statements in the specification that the device was adapted for use with gas meters, and one claim was broad enough to cover the registering device for whatever purpose it could be used. (Serafford, 18 Cour., 4-8, Jan. 1906.)

Claims for a staple forming mechanism, designed particularly for making wire fence but not limited in terms thereto, may be anticipated by machines for making and driving staples in the manufacture of boxes, shoes, brushes, or other arts; the field of prior art must be as broad as the field of infringement. (Decree 226, F., 774, affirmed. Jackson Fence Co. *vs.* Peerless Wire Fence Co., 228 F., 691.)

A patent for a material for making steam packing may involve invention, although a similar material had previously been used for other and wholly different purposes.

Where a patent for a material to be used for a stated purpose involved invention, it is not necessarily rendered invalid by the fact that the patentee also suggests its use for a different purpose, for which alone it would not be patentable.

The Forsyth patent No. 622,889, for a sheet material for packing, matting, and the like, was not anticipated and discloses invention in so far as it relates to a packing material.

While the claim in this case was broadly for a sheet material of certain structure without specifying the use, the case was presented as limiting the use of the sheet to steam packing. In that view the patent was sustained. A patent disclosing a matting for doorsteps, etc., having in part at least a very similar structure was cited as anticipatory. In regard to it the court said:

Even if the complainant's material, as described in his specification and claim would have

been anticipated if used before him for matting, Potts did not strictly anticipate because he did not use it for the matting itself, as a part of the body thereof.

The complainant's material may be of very little use as matting; and very likely, were that the only purpose to which it could be applied, the invention could not be sustained. As, however, in view of its use as steam packing, it involves invention, as we have explained, the mere fact that it might also be used for matting, or that the patentee suggested that it might be so used, would not deprive him of his right to a patent. Forsyth *vs.* Garlock, 142 F., 461.

Knowledge of the two arts by the same set of workmen has been held immaterial. (Rogers *vs.* Fitch, 81 F., 959.)

EFFECT OF HOLDING THAT CERTAIN ARTS ARE NOT ANALOGOUS.

One question that frequently arises is what effect should a court decision that certain arts are remote or not analogous have upon future actions in the Patent Office in considering the question of double use involving these arts? Does such a decision settle the matter and following such a decision should the Examiner at once discard a reference involving a transfer from one of such arts to the other?

As a rule the patents belonging to a single art cover a much broader field than can possible be reviewed by the court in such a case. It is assumed, however, that the most pertinent patents referring to the particular feature of the arts under consideration are before the court.

It may perhaps be that while certain features of two arts held to be non-analogous are remote from each other, certain other features of the same two arts may approach each other so closely as to be analogous. This points again to the importance of the scope of the term in each particular case, for while a certain art may be broadly referred to, what the court really had in mind may have been much more limited in extent.

Care should be taken not to enlarge the scope of any

art under consideration beyond what the court had in mind. To determine this requires careful study of the case involved. Much difficulty arises from the fact that in many cases the court merely holds that certain arts are remote or not analogous and discards the references without going into details.

As indicating the importance of such decisions in guiding the Examiner the following cases are cited:

> When a desired result is sought by those working in the art and skilled therein, but not obtained for lack of efficient means, which such persons are unable to devise, that another, by some seemingly simple change or adoption of an old means as an element of a combination, accomplishes the desired result or a better one, and his device proves commercially successful and largely displaces all others, it constitutes patentable invention.
>
> The art of paint can construction, or can construction in general, is not an art at all analogous to that of electric lamp socket construction. While an inventor in the latter art is presumed to know what has been done before in that art, he is not required or presumed to be familiar with can construction of any sort, especially those designed for some special use. (Weber Electric Co. *vs.* National Gas and Electric Fixture Co. (204 F., 79.)

This case would appear to indicate that if the arts are non-analogous the matter is settled. In Standard Caster and Wheel Co. *vs.* Caster Socket Co., Ltd. (113 F., 162), it was held that:

> The transfer of a device from one art to another does not amount to invention, although the arts may not be analogous, where such device performs the same function as it did before, if no substantial change were necessary in order to adapt it to its new use.

See also Herman *vs.* Youngstown, 191 F., 579, in which it was held:

> Such a question is essentially one of fact, and, in its solution, we get little help from the decided cases. They lay down general rules which are familiar, but the application of these rules to specific facts depends upon the force which those facts carry to those who determine the issue.

It would appear, therefore, that while if in any case the arts are held to be non-analogous or remote, the court usually discards the reference under consideration, it would be unsafe to lay down a general rule to this effect.

Apparently in each case where it has been held that certain arts are either analogous or non-analogous, as distinguished from those where the decision has been directed merely to the particular use under consideration, the court has first considered the structure, function, operation and result of the devices involved, and also in some cases as cumulative evidence, the time elapsing between two patents.

From this a decision has been reached. If the evidence is sufficient to indicate that the arts are non-analogous, the particular use under consideration will be non-analogous. This is the question that must be settled in any case whether a holding in regard to the arts is made or not. As the same line of reasoning is followed in either case it would appear that the logical way to proceed in any case is to consider the particular use involved as above indicated, decide as to it and let the question of the arts being analogous or non-analogous take care of itself.

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Reference Characters in Claims

A paper read February 15, 1917, before the Examining Corps of the United States Patent Office

BY

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Reference Characters in Claims

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Claims containing reference characters have been granted by the Patent Office and the courts have given broad or narrow interpretations to such claims, holding that the reference letters did or did not operate to affect the scope of the claims.

The claims were given either as broad scope, as if the reference characters were omitted, or were limited to the special characteristics of construction identified by those reference letters on the drawings to which they were applied.

The courts have given the broadest interpretation to such claims where the prior art permitted and have limited them to the construction or characteristics of the parts shown in the drawing of the patent where it is found either that the principle of the invention resided solely in the special form portrayed or that the prior art was so prolific and pertinent that the claim could not be maintained unless restricted to the precise details of construction shown, or that the applicant by statements in his specifications intended himself to be so limited or else he was, either by cancellation or amendment of claims during the prosecution of the application in the Patent Office, estopped from asserting a broad interpretation of the claim.

Having set forth the above principles I will now discuss the various decisions from which they were deduced.

In the case of Lake Shore and M. S. Ry. Co. *vs.* National Car-Brake Shoe Co. (110 U. S., 229-238) the claims of the patent there sued on (No. 40,156, granted James Bing, October 6, 1863, for an improved shoe for car-brakes) were as follows:

> 1. The shoe, A, and sole, B, both being constructed and adapted to each other, substan-

tially as described, so that the sole can have a lateral rocking movement on the shoe, for the purposes specified.

2. The combination of shoe, A, sole, B, clevis, D, and bolt, C, the whole being constructed and arranged substantially as specified.

Only the second claim was sued on. The defendant contended that the element of the lateral rocking motion or movement of the sole, B, should be read into the claim, as it was described as one of the features of the sole in the specification. It was held both in the lower court (4 F., 219) and in the Supreme Court that this contention on behalf of defendant could not be sustained; that the intent to cover a broader construction was fairly deducible from the specification, and—

> There being nothing shown in the state of the art which requires any such construction of the second claim as that contended for by the defendant, and it being fairly susceptible of the opposite construction, and the latter being one which is commensurate with the real invention embraced in the second claim and one which prevents the real substance of that invention from being bodily appropriated by an infringer, it is proper to give the claim such a construction.

Sessions *vs.* Romadka (145 U. S., 29), was a suit brought for the infringement of letters patent No. 128,925, issued July 9, 1872, to Charles A. Taylor, for an improvement in trunks. The only claim which was alleged to be infringed was the third, which related to the spring catches for holding the trunk shut. The claim read as follows:

> 3. The spring catches, I, constructed and applied to the front of the body, as described, in combination with the tongues or hasps, J, on the top, when arranged to operate as set forth.

This claim was held to be the declaration of a pioneer invention, and a device differing in form from the trunk fastener disclosed in the patent was held to be an infringement of this claim. Mr. Justice Brown, speaking for the court, said:

In view of the fact that Taylor was a pioneer in the art of making a practical metallic trunk fastener, and invented a principle which has gone into almost universal use in this country, we think he is entitled to a liberal construction of his claim, and that the Romadka device, containing as it does all the elements of his combination, should be held as an infringement, though there are superficial dissimilarities in the construction.

The court, in National Cash Register Co. *vs.* American Cash Register Co. (53 F., 367), determined the proper construction of the following claim in which one of the elements was designated by a reference letter:

> 3. In a cash-registering apparatus, a series of keys to designate certain amounts, combined with the drawer, the drawer-holder, D, mediately connected with said keys, and the spring to throw the drawer open when released by the drawer-holder, substantially as described.

The court said of this claim:

> This claim, as we read it, is distinctly, exclusively, and broadly for a new combination; and we know of no authority or principle of law which, so reading it, would warrant us in converting it into a claim for details merely.

In National Hollow Brake Beam Co. *vs.* Interchangeable Brake Beam Co. (106 F., 714, 45 C. C. A., 565) the court said:

> There are cases wherein the form of a device is the principle of the invention. There are other cases wherein the state of the prior art and the specific terms of the specification and drawings leave no doubt of the intention of the applicant to restrict his claim to the specific form of device or element he points out. In such cases claims of patents are sometimes limited to the specific forms of the devices pointed out by letters or numbers in the claims or specifications.
>
> Weir *vs.* Morden (125 U. S., 98, 107).

Railroad Co. *vs.* Kearney (158 U. S., 461, 469).
Crawford *vs.* Heysinger (123 U. S., 580).
McCormick Harvester Co. *vs.* Aultman, Miller and Co. (C. C., 58 F., 773).
Newton *vs.* Manufacturing Co. (119 U. S., 373).
Bragg *vs.* Fitch (121 U. S., 478).
Deyfoos *vs.* Weiss (124 U. S., 32), and
Hendy *vs.* Iron Works (127 U. S., 370, 375).

The description in a specification or drawing of details which are not, and are not claimed as, essential elements of a combination, is the mere pointing out of the better method of using the invention. City of Boston *vs.* Allen (91 F., 248, 249). A reference in a claim to a letter or figure used in the drawing and in the specification to describe a device or an element of a combination does not limit the claim to the specific form of that element there shown, unless that particular form was essential to, or embodied the principle of the improvement claimed. Sprinkler Co. *vs.* Rochler (82 F., 428, 431); McCormick Harvesting Machine Co. *vs.* Aultman, Miller and Co. (69 F., 371, 393); Miller *vs.* Tool Co. (71 F., 621); Delemater *vs.* Heath (58 F., 414, 424); Reed *vs.* Chase (C. C., 25 F., 94, 100).

In Delemater *vs.* Heath (58 F., 414), wherein a claim containing a reference character was construed, it was stated:

> A mere reference in a claim to a letter on the drawing does not of itself limit the claim to the precise geometrical shape shown in the drawing (Reed *vs.* Chase, 25 F., 100), even though the description of the drawing in the specification refers to the part there lettered by an adjective appropriate to the form shown in the drawing, unless that particular form is pointed out in the specification or was known by the state of the art to be the particular improvement the inventor claimed.

In McCormick Harvesting Machine Co. *vs.* Aultman (69 F., 371, 393, 16 C. C. A., 259, 281), the patent in suit

was for an automatic twine binder; the claims were combination claims, in which the several parts were referred to by letters of reference; yet, as the evidence showed that the patentee had made, in point of fact, a success where others failed, and had completely solved a practical problem, the court, despite a prolific prior art, sustained the patent as a primary patent, and among other things said:

> Nothing will restrict the pioneer patentees' rights in this regard save the use of language in his specifications and claims which permits no other reasonable construction than one attributing to the patentee a positive intention to limit the scope of his invention in some particular to the exact form of the device he shows, and a consequent willingness to abandon to the public any other form, should it be adopted and prove useful. Instances of such a limitation may be found in Keystone Bridge Co. *vs.* Phoenix Iron Co. (95 U. S., 274) and in Brown *vs.* Manufacturing Co. (6 U. S. App., 427; 16 U. S., App. 234; 6 C. C. A., 528; 57 Fed., 731. But there is no such limit in the patent under discussion, and the rule applies which was so fully explained in Winans *vs.* Denmead (15 How., 330), where the court said:
>
> "Patentees sometimes add to their claims an express declaration to the effect that the claim extends to the thing patented, however its form or proportions may be varied. But this is unnecessary. The law so interprets the claim without the addition of these words."

Empire Cream Separator Co. *vs.* Electric Candy Machine Co. (166 F., 764), is a particular case in which the patentee, although in view of the state of the art apparently having a pioneer invention, had, by the particular use of reference characters in his specification and claims, made an intended limitation of his invention. The claim of that patent sued on was as follows:

> 1. The combination, in a candy-machine, of a rotative, perforated vessel, A, A′, A,″ C, C′, and

> a heating attachment or burner, M, substantially as shown and for the purpose set forth.

It is noted of the specification and drawings of this patent, that there was no general reference character indicating the rotative, perforated vessel, and wherever it was referred to it is indicated as the vessel, A, A′, A″, C, C′. The court said in this case:

> We have here no prior art to consider, but simply the method by which the patentees have seen fit to set forth their claims. The fact that the references A, A′, A″, C, and C′, refer to the five different component parts of the perforated vessel makes these several parts essential subelements or features of the same, and each being functional, the patent is not infringed by a machine in which any one of the features are lacking.

In Knapp *vs.* Morss (150 U. S., 221) the complainant had cancelled a claim in view of the prior art, and then desired to interpret the claim allowed him by amendment as if it was as broad in scope as the claim rejected and cancelled. The court stated in substance if the claim could be saved from being declared invalid, it would on account of the prior art and the limitation and restriction which would have to be placed upon it by the action of the Patent Office have to be strictly limited to the exact construction of the parts as indicated by the letters of reference in the drawings.

Of Knapp *vs.* Morss, Walker on Patents, states:

> It is true that where the particular characteristics of the combination shown in the drawings of a patent, are all that differentiate it from the prior art; and when those parts are specified in an amended claim by reference letters or numerals, in pursuance of a rejection by the Patent Office of a prior claim which was broad enough to cover the prior art; the amended claim is limited to a combination of parts having those particular characteristics; for if not so restricted the effect would be to make the claim coextensive with what the Patent Office rejected.

A similar case to Knapp *vs.* Morss, is Fall River Co. *vs.* Wolfe (40 F., 465). During the prosecution of this case in the Patent Office the following original claim was presented:

> The combination, with a shaft, and a loose pulley, adapted to run freely on said shaft, of a clutch rigidly secured to said shaft, having two inversely moving radial jaws, adapted to engage, one upon the periphery, and one against the interior, of the pulley flange, said jaws being connected by *suitable mechanism* with a lateral moving sleeve and shifting lever, whereby they may be simultaneously opened and closed as said lever is moved toward the right and left.

The Examiner, having ruled that the words "suitable mechanism" rendered the claim vague and indefinite, the applicant cancelled them and substituted therefor "lever, J, link I, and lever, F." Held, that the patentee by the amendment was estopped to assert for the amended claim the same breadth of interpretation he might have obtained if the positive mechanical connection specified by the words "lever, J, link, I, and lever F," had not been substituted for the words "suitable mechanism."

Further decisions reviewed, but considered only cumulative to those hereinbefore mentioned are—

Ross-Moyer Mfg. Co. *vs.* Randall (104 F., 355).
Gage *vs.* Herring (107 U. S., 640).
Harmon *vs.* Struthers (57 F., 637).
Page Co. *vs.* Land (49 F., 936).
Dunbar *vs.* Eastern Elevating Co. (75 F., 567).
American Box Co. *vs.* Wilson (50 F., 425).
Hammerschag *vs.* Scamoni (7 F., 584).
Fisher *vs.* American Pneumatic Tool Co. (71 F., 523).
Henzel *vs.* Cal. Elec. Works (51 F., 754).
Boston Elec. Co. *vs.* Fuller (29 F., 515).
Dixon Co. *vs.* Pfeifer (55 F., 390).
Perrin *vs.* Manhattan R. R. Co. (62 O. G., 1209).
Lehigh Valley R. R. Co. *vs.* Kearney (72 O. G., 139).
Muller *vs.* Lodge et. al. (77 F., 621), and
McClain *vs.* Ortmeyer (141 U. S., 419).

The question of reference characters in claims has been passed upon by various Commissioners of Patents. In *Ex parte* Parker (1871 C. D., 293), the then Commissioner of Patents said:

> As to the Examiner's suggestion that letters of reference should be employed in the claim in order to make it more definite, it is only necessary to say that the idea—not now broached for the first time—that by the use of these letters the scope of the claim can be more accurately defined than by the use of proper descriptive words, is a fallacy. The letters of reference used upon the drawings are for convenience merely, and in themselves have no significance. The substitution of letters of reference for the proper verbal description may tend to render a claim ambiguous, never more exact.

In *Ex parte* Osborne (1900 C. D., 137; 92 O. G., 1797), the then Commissioner held:

> A claim which relies entirely upon reference letters to indicate structure is objectionable and could not be allowed any more than a claim for "the device shown and described"; but the use of reference letters in a claim which otherwise sets forth a definite structure is not objectionable.

From the above decisions in the Patent Office, it would appear that the practice should be to permit the use of reference characters in claims only where the state of the art, the nature of the invention, the intent of the applicant, or the nature of the prosecution of the claims would give the applicant as broad a claim as if the reference characters were omitted. On the other hand, reference characters should not be permitted where the intention is to give a restricted meaning to the claims, as in that case the invention can be more accurately defined by the use of proper descriptive words.

February 15, 1917.

The Necessity of Limiting the Claim to the Real Invention

FOLLOWED BY

A Discussion of the Class of Cases Treated in the In re McNeil Line of Decisions

A paper read March 1, 1917, before the Examining Corps of the United States Patent Office

BY

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A DISCUSSION OF THE CLASS OF CASES TREATED IN THE IN RE McNEIL LINE OF DECISIONS.

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Many applications are filed in the Office in which a machine is disclosed together with a device for putting it into operation. This may be, for example, a check-controlled device used for putting into operation a boot-brushing machine or a vending machine. There is some connecting element between the machine and the check-controlling operating device. There may be a patentable combination in the relation established between the boot-brushing or vending machine and the check-controlling device. In such a case the inventor may undoubtedly be properly allowed claims to the combination. On the other hand the relation between the machine and the check-controlled device is often the conventional one shown in a large number of prior patents. The applicant has invented a boot-brushing or vending machine and has illustrated it as set in operation by a check controlled device and so described it. If the applicant claims the vending machine and recites in the claim no means for setting it in operation, should the claim be rejected as incomplete? Or, on the other hand, if the applicant recites in the claim the specific vending machine in combination with "means for operating it" should the claim be rejected as being met by the

broad combination of operating means with any vending machine and told that the invention, if any, lies in the specific vending machine and that alone? See In re Hawley, 121 O. G., 691.

Or again, is it in truth a matter of indifference and should the Office allow the claim in either form on the ground that the real invention covered by the claims in either form is the same and the courts will construe the claim to protect that invention?

We do not see how it can be held to be a matter of indifference. To so hold is to maintain that a claim for a combination of a certain number of elements is the same as a claim for a combination of a different number of elements, one of said claims containing at least one element that is absent from the other.

Robinson says, Book III, paragraph 508 (and cites decisions to support his position): "A claim for a combination covers the exact combination claimed and nothing more. It does not protect the elements of the combination nor their mode of union, nor their cooperative law, separately considered. It does not embrace any other union of the same elements with each other, or with additional elements, nor a combination of a portion of these elements among themselves. Where it omits certain elements it excludes them from the combination, though they are in fact essential to it as an operative means, and where it treats certain elements as necessary they can not afterwards be declared by the inventor to be unnecessary, although his real invention was complete without them."

It seems repellant to logic and sound sense to hold that claims to one combination, and claims to another combination including an element or elements not recited in the first combination are both proper expressions of one and the same invention.

This paper is written to maintain the position that it is a matter of importance that the claims of an application recite the elements of the invention and nothing more; that the invention must be a practically operative means, but that any combination forming a part of a machine, may be as truly a "practically operative means" as an entire device ready for the market. It is believed that to require the claim to conform to this

rule is merely to carry out the plain provision of the statute, and is in no sense an over-refinement of procedure. It is not intended of course, to confine these remarks to machines, as they undoubtedly apply also to the other statutory classes of invention.

Moreover, it is thought that an insistence on the requirement that the claim be restricted to the true subject-matter of the invention tends to definiteness in the claim and to a reduction of the number of claims in an application; and is absolutely necessary to the preservation of proper lines in the classification of patents.

Section 4888 R. S., reads as follows:

> Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor.

The two parts, description and claim, of what is known as the specification are thus provided for and the office of each clearly pointed out.

The office of the description is to put the public in possession of a new concept, the embodiment of an idea of means, and the act of putting the public in possession of this new idea of means forms the consideration on the part of the inventor for the grant of the exclusive use of this new idea of means for a term of years.

In conveying to the public a full and complete knowledge of his invention the applicant very frequently necessarily oversteps the bounds of his own invention and incidentally includes descriptions more or less complete of arts or instruments other than his own. So far as enlargement of the description is necessary to enable persons skilled in the art or science to which the invention appertains or with which it is most nearly connected, to make, construct, compound, and use the same, such enlargement is not only unobjectionable but is in fact required by the statute.

"The office of the claim," in the language of Robinson, "is to *define* the limits of that exclusive use which is secured to the inventor by the patent and thus to draw the line between those arts or instruments that are open to the public, and those whose employment by it is forbidden until the patent is expired." The claim, then, is essentially a definition and the sole office of a definition is to include all of that which is to be defined and exclude everything else. To include in the claim any element not a part of the invention is to render it inaccurate and to defeat the only purpose for which the claim exists. The same is true, of course, of the exclusion of any element which does form a part of the invention.

The object of the claim is not to set forth the use of the invention nor to describe it, not to enable one to construct or compound it. All this is done by the description and any purely descriptive expressions or statements of function are out of place in the claim except in so far as they are necessary to the only purpose of the claim which is to separate the subject-matter forming the invention from all other subject-matter.

The language of the statute is clear—"he (the inventor) shall particularly point out and distinctly claim the *part, improvement, or combination* which he claims as his invention." The point to be determined is—What is the invention?

The claim must, then, be co-extensive with the subject-matter of which the invention is found to consist, neither omitting that which forms a part thereof nor including any element beyond that subject-matter. The invention can surely comprise no more than that upon which the

inventor has exercised his talent. If a machine, for example, contain the elements A, B, C, D, E, F, and G and an inventor, observing its operation, is led to believe that he can improve the subcombination C, D and E, and succeeds in so doing without modifying or attempting to modify the action of the remaining elements, his invention necessarily consists in that which he substitutes for C, D and E. If that is the invention it is that, and that alone, which should be recited in the claim. That element or combination of elements may be, as far as is known, useless in any other relation. Such a state of facts does not authorize the inventor to include in his claim that upon which he has expended no labor and concerning which he has obtained no results.

Robinson (Book III, page 453) uses the following language: "Besides the claim for the combination as a whole, each of its elements and subcombinations, if new and patentable inventions, may be also claimed, even where they are useless except as portions of the principal invention." Surely this applies with just as much force where an improvement in some subcombination of the original device is made by a second inventor.

There appears to be absolutely no foundation for regarding the claim as incomplete merely because it does not form what is commonly considered a complete machine within itself. It is clear that an inventor may concern himself with as much or as little of a machine, product or process as he sees fit whether it be with one single element or a dozen. The result of his labor can comprise no more. If he has devised a new and useful part, or parts, and exercised inventive talent in so doing he has made an invention and is entitled to protection therefor. But he is entitled to protection for no more and for nothing else. If, in order to recite a "complete machine," even in answer to a rejection of the claim as incomplete, by the Examiner, the inventor should include in his claim additional elements, he does so at his peril. He no longer fulfills the requirements of the statute. He fails to point out his invention. He claims a combination which he did not invent and the courts may refuse to construe his claim out of its clear meaning in order to save the grant.

Indeed, it is not clear how a claim for a machine or elements thereof can be incomplete except when there is a hiatus, a lack of connection, between some of the elements of the claim. If the chain of elements is unbroken the claim is in itself unobjectionable. It is complete so long as it recites a chain of elements which receiving power at one point responds thereto at another point according to the law governing the combination.

If we seek light on the meaning of the statute in the decisions of the courts we find that for the most part they help us only indirectly. The reason for this is plain. The Office deals with a claim in the plastic condition of formation; the courts deal with it when it forms a fixed part of a grant bearing the seal of the United States Government. The courts will often so construe a claim to a valuable invention as to save the invention if possible The patent is a contract and the presumption of law is that the contract is valid. The claim is, in the patent, fixed and unalterable and the courts can only save the rights of the inventor by such a construction of the claim as will preserve the validity of the patent. Under these circumstances the decisions of the courts do not make a guide to be followed without discrimination in the examination of a claim while the contract between the public and the inventor is still in the making.

Commissioner Leggett in sustaining an objection to a loosely drawn claim says (*Ex parte* Cornell, C. D., 1872, p. 120): "I have no doubt but that, if allowed, the courts would, by liberal construction, save this claim—

"The fact that the courts will construe loosely drawn and ambiguous claims so as to save a patent, if possible, is no valid reason for allowing such claims, and is no justification of attorneys in pressing them upon the Office.

"If the patentee were the only person interested there would be some propriety in allowing his claim to pass without question as to its form. He might then have the largest liberty in using ambiguous and doubtful phraseology. But such is not the case. 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. Ambiguous descriptions and loosely drawn claims are often sought for the

purpose of public deception, and when obtained, have been unscrupulously used in swindling schemes. In this way the public has often been injured and the whole patent system brought into disrepute."

Again, Commissioner Marble in Ex parte Bancroft and Thorne, C. D., 1881, p. 55, says: "It is also true that the courts have sometimes sustained patents which ought never to have been granted, in order to protect the rights of parties. . . . The fact that the courts will sustain patents in order to protect the rights of parties, or that patents have been improperly issued, furnishes no rule of action for this Office. The only rule which can properly govern any person charged with the execution of the law is the law itself; and as said by Mr. Justice Story in the case of Wyeth et al. *vs.* Stone et al., 'When this is strictly construed it is wisely construed.' "

These citations are deemed sufficient, and perhaps are even unnecessary, to establish the rather obvious proposition that the fact that the courts sustain a claim in a patent is not an affirmation that the claim should have been granted, nor it is a warrant to the Office to grant similar claims. The following instance illustrates and suggests some of the disadvantages of allowing a claim reciting extraneous elements even when the claim is finally upheld by the court:

In the case of Steward *vs.* Thomas (Court of Appeals of the District of Columbia), 202 O. G., 1263, the invention involved an electric lamp socket adapted for use on electric sign boards and so constructed that it could be mounted and adjusted from the rear of the sign-board, in contradistinction to those of the old type, which were so constructed that their securing means were partly adjusted from the front and partly from the back.

The case came up on appeal from a decision of the Commissioner of Patents in an interference proceeding in which priority of invention was awarded to Thomas. The count of the interference read as follows:

> "An electric sign receptacle comprising an insulating body carrying within it lamp receiving terminals and having also wire terminals, outwardly projecting claws carried by the receptacle

and adapted to be inserted through the sign plate from the rear in any position rotarily, and means in connection with said claws to grip said sign plate so as to hold the receptacle against rotation."

Thomas had made a model which he offered in evidence and which the court states "embodied every *real* element of the invention."

The tribunals of the Patent Office, however, had refused to accept the model as a reduction to practice because it did not have within it lamp-receiving and wire terminals, elements positively recited in the claim.

The Examiner of Interferences awarded priority to Steward on the ground that the Thomas model referred to was not a reduction to practice as it did not contain all the elements recited in the claim.

The court, on the case being appealed said, however, "While those elements are mentioned in the issue they were both well known to the art and really form no part of the invention. . . .

"If the claim read 'an insulating body *capable* of carrying within it a lamp receiving terminal and capable of having attached wire terminals'—it could not reasonably be contended that the failure of Thomas to install those old elements in his model would have precluded that such model amounted to a reduction to practice. We think the claim should be thus construed."

It has been well said that "Where there is no ambiguity, there is no construction," and hence the very fact that the court is compelled to modify the claim by construction is proof that the claim does not perform its office perfectly.

The beneficent agency of construction in the courts is an important and necessary factor in carrying out the intent of the statutes, but it is certainly the duty of the Patent Office to limit the necessity of the application of that agency as much as practicable.

The refusal of the tribunals of the Patent Office to accept Thomas' model as a reduction to practice also brings out clearly a decided disadvantage in including in the claim elements which do not form part of the real invention.

A drawback felt more keenly by the Office, is that improper inclusion of elements often affects the classification of the application and renders the issue search far less reliable. Not only is this true but if the same invention be given different settings by different applicants and elements of such settings be included in the claims, the definition of the proper issue between the parties becomes a matter of much greater difficulty in view of the manner in which interferences must be instituted.

But the court will not invariably go out of its way to construe a loosely drawn claim in such a way as to save the invention. And how cogent an argument for a clear and definite claim forming a true definition of the invention, is a decision in which, with all the presumption in favor of a fixed and immutable grant, the court finds itself compelled to hold the grant void for the sole reason that the claim recites elements which do not form a part of the invention!

Such an argument is furnished by the following instances. In the case of Underwood et al. *vs.* Gerber et al., brought in the United States Circuit Court, Eastern District of New York, Underwood et al. had obtained two patents, Nos. 348,072 and 348,073. The specifications of the two patents are almost indentical. The statement of invention of Patent No. 348,072, reads as follows: "Our invention relates to the process of producing a transfer-surface adapted to be employed upon a sheet or vehicle to take the place of articles of trade commonly known and designated as 'Carbon papers' or 'semi-carbon papers,' which are employed by typewriters or others to produce copies of impressions either obtained by a machine or by a stylus or other writing means." The specification then described in detail the manufacture of a composition suitable to be applied to the surface of a fabric for the purpose set forth. The claim of this patent, 348,072, reads as follows: "The coloring composition herein described for the manufacture of a substitute for carbon paper, composed of a precipitate of dye-matter, in combination with oil, wax, or oleaginous matter, substantially as set forth."

The statement of invention of Patent No. 348,073 stated that the invention relates to an improved re-

producing surface and that said improved transfer surface is spread upon a sheet or vehicle and when so applied is adapted to be employed in place of "carbon paper." The claim of Patent 348,073, is as follows: "A sheet of material or fabric coated with a composition composed of a precipitate of dye-matter, obtained as described, in combination with oil, wax or oleaginous matter, substantially as for the purposes set forth."

The claim of 348,072 is for a composition specifically stated. The claim of 348,073 is for a sheet of material or fabric coated with that composition stated just as specifically as in Patent 348,072. The patentees, owning both patents, sued on No. 348,073. In the decision rendered by Judge Lacombe it is said:

"The present application is to restrain the defendants from continuing to infringe; and for some unexplained and unaccountable reason the complainants sue only on a single patent, and that, too, the one whose number would indicate that it was in time of application and of issue subsequent to the other. Having taken their stand solely upon this patent, what is their position toward defendants who make the composition of matter described in both patents and combined paper with it as indicated in the one sued on?

"When differentiated from each other, it is found that the only step in advance which the higher-numbered patent suggests is the spreading upon paper of the composition described in the lower-numbered patent. In view of the earlier patents and publications which have been put in evidence—in fact, considering only what is within the common knowledge of all who have for upward of a generation manifolded writing by the use of a paper coated or impregnated with some pigment—it is difficult to see how even the Patent Office could detect novelty or invention in merely taking a coloring substance already known and applying it to paper. If the patent for the composition of matter forming the coloring substance had been granted to John Doe the day before complainants applied for their patent covering the application of that substance to paper, the latter would be clearly void for want of novelty or invention. It follows that if the first-numbered patent were held by an assignee of the complainants, near or remote, he

could not be held an infringer of the second patent. Complainants conceded, upon the argument that an assignee could not be so held except for the combination of paper with the coloring substance for the purpose named, and such a combination is old. The complainants insist that their position is precisely the same as if they held a single patent with two claims—one for the process or composition of matter producing the coloring substance, the other for the combination of that substance with paper. This might be so if they could be considered as holding both patents. But in this suit they have carefully abstained from declaring upon the first patent or even in any way referring to it. Its issuance is only known to the court through the defendants, who set it up in defense. The complainants base their claim to a monopoly solely upon the second patent. As that single patent, tried by the usual tests, may stand or fall, the case which they may make out upon their complaint must also stand or fall. One who seeks to enforce the rights secured to him by a patent is an Ishmaelite—his hand against every one and every one's hand against him. His adversary may avail of every publication of the fruits of human invention—by Letters Patent, by printed books, by actual public use—as if they were his own. When offered in evidence they may prove not conflicting, not anticipatory, or be found otherwise immaterial; but for what they are worth they are the common property of all who are called upon to justify their acts in the face of a complainant patentee. The holders of the patent sued upon in this case must submit it to comparison with the first patent, as if that first patent were outstanding. By not declaring upon it as its present owner they leave it to the defendants to be availed of as if it were the property of a stranger. What, then, is his position? At the very time when his patent was issued the composition of matter which enters into his combination with paper was known, and the right to exclude all persons from making it was conferred upon the holder of another patent. Upon the holder of the patent sued upon was conferred the right to exclude all others from combining paper with this combination; but, in view of the state of the art, such a grant was void.

"The cases cited by complainants (Railway Signal Mfg. Co. *vs.* Broadway and Seventh Ave. R. R., 22 Fed. Rep., 655, and McMillen *vs.* Ross, 1 Fed. Rep. 723), do not apply. There it was held that the additional combination which the original inventor sought to secure by his later patent was in fact a real step in advance. It was held that the description of his invention in the earlier patent would not preclude him from securing his additional claim, because that additional claim covered a patentable invention. 'Whether two patents,' says the court in the case last cited, 'cover the same invention must be determined by the tenor and scope of their claims, not by the description in the specifications.' Here, as we have seen, the combination which the second patent sought to cover was not patentable. This suit, based upon it alone, must therefore fail. To the holder of the first patent, whoever he may be, alone belongs the right to exclude all others from making the new composition of matter, the only invention which (if the other issues in the case be decided against the defendants) was sufficiently novel to warrant the granting of Letters Patent.

"Usual decree for defendants."

This case was appealed to the United States Supreme Court (63 O. G., 1063). Mr. Justice Blatchford delivered the opinion of the court.

After reviewing briefly the decision of the Circuit Court, it is said, "We are of opinion that the decree of the Circuit Court must be affirmed. There was no patentable novelty or invention, in view of the early patents and publications put in evidence, in applying an existing coloring substance to paper."

In the opinion, Miller *vs.* Brass Co. (C. D., 1882, 490), is cited as follows: "The claim of a specific device or combination and an omission to claim other devices or combinations apparent on the face of the patent are, in law, a dedication to the public of that which is not claimed. It is a declaration that that which is not claimed is either not the patentee's invention, or, if his, he dedicates it to the public."

The opinion also cites Mahn *vs.* Harwood (C. D. 1885, 144), as follows: "The taking out of a patent which has, as the law requires it to have, a specific claim, is notice

to all the world of the most public and solemn kind that all those parts of the art, machine, or manufacture set out and described in the specification, and not embraced in such specific claim, are not claimed by the patentee, at least, not claimed in and by that patent. So far as that patent is concerned, the claim actually made operates in law as a disclaimer of what is not claimed."

The opinion concludes: "As No. 348,073 does not claim the composition of matter, although it describes it, that composition must be regarded as disclaimed, and as being public property, and there was no invention in applying it to paper, as claimed in the patent sued on. Decree affirmed."

Patent No. 348,073 sets forth in the claim the specific composition, but as the claim reads, "A sheet of material or fabric coated with" the specific composition, it is held by the Supreme Court to be a claim for the mere application of a previously conceived coloring substance to paper. The application of coloring substance to paper is shown to be old by patents cited; the selection of one particular coloring matter to be applied to paper in the same relation and for the same purpose as others had been applied involved no invention and the court, therefore, holds the patent void.

When the inventor put into his claim the paper or sheet of fabric, he introduced an element with which the specific form of his composition has no coaction different from the coaction of other compositions of like nature. He extended his claim beyond his invention; it became a claim for an old combination and failed.

Another example is found in the case of Bullock Electric and Mfg. Co. *vs.* Westinghouse Electric and Mfg. Co. (129 F. R., 105), in which there were three patents to Nikolà Tesla involved. We cite one of the claims:

Claim 1 of patent No. 381,968.

> The combination with a motor containing separate or independent circuits on the armature or field magnet, or both, of an alternating current generator containing induced circuits connected independently to corresponding circuits in the motor, whereby a rotation of the generator produces a progressive shifting of the poles of the motor, as herein described.

So far as we are concerned, the question before the court was whether or not the making and selling of the motor above described constituted infringement of the above claim.

The court said: "But it is elementary that neither the making, selling nor using of one element of a combination is infringement. . . . 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 claims, 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."

Another decision even more in point is the following: David H. Langan filed an application January 25, 1897, in which the invention is stated to relate to improvements in grab hooks employed for skidding logs. Grab-hooks are used in pairs, one on each side of the log to be skidded and are connected by links to a chain or draft device. The hooks have to be driven into the side of the log with a maul. Langan stated in his specification that "One of the prime features of my invention is to so construct the hook as to obviate undue wear and destruction of the mauls and to thereby increase the period of their utility from a half day to a month more or less, secondly to so construct the tooth of the hook as to adapt it to be more readily driven into the side of the log to be skidded, thirdly to increase the strength of the hook at the point at which the greatest strain occurs, to wit, the angle, and fourthly to so form the hook as to facilitate its withdrawal from its engagement with the log by means of the usually employed pike pole. With the foregoing objects in view my invention consists in the particular and peculiar form of hook hereinafter described and pointed out in the claims."

The application contained [illegible] claims, [illegible] claims were rejected [illegible] claims [illegible] to [illegible]

[illegible]

> ends and between the same provided with a driving tooth, said shank being widened above its tooth for the purpose of producing an increased impact surface, substantially as described."

This claim was "rejected as incomplete without the links, and the eye in the end of the shank is useless without the other elements." Applicant replied by cancelling claims 2, 4, 5 and 6, amending claims 1 and 3, and inserting a new claim 3 as follows:

> "The combination with a pair of grab-hooks, each consisting of a shank having an eye at its front end, and at its rear end having a projecting perforated ear immediately in front of which latter is located an angularly disposed driving tooth, said shank being widened above its tooth for the purpose of producing an increased impact surface, of a draft device connected with the eyes at the front ends of the shanks, substantially as specified."

All the claims, except claim 3, having been rejected, they were cancelled and the application became a patent with the above claim as the sole claim thereof. The inventor sued the Warren Axe and Tool Co. in the Circuit Court, Western District of Pennsylvania, and the complainant's bill was dismissed. The court held that "every element of the combination is old and the means of combining these old elements has nothing either new or patentable in it."

The following extract from the testimony of complainant's expert witness shows clearly enough into what difficulties the claiming of elements not involved in the invention plunged the patentee. The expert witness testified

"It would also seem to be clear that the patentee did not consider that it was necessary to explain, or to show, any details relating to the draft appliance beyond the mere indication of the link, and the ring. I think this paragraph would also indicate that the patentee was familiar with the fact that it was necessary in the use of grab-hook, to couple them in pairs and connect the

pair of grab-hooks by the use of links or chains to the rope or chain connected with the power employed to skid the logs. Taking this paragraph in connection with what succeeded it, I think that there can be no doubt that the *patentee considered his invention to be the improvement in the grab-hook, and not in the draft appliance or any particular way of coupling up grab-hooks or connecting them to a draft device.*"

Again on cross-examination, he says:

"As I take it, the patent in suit does not assert any novelty in the draft device which is shown, or in the broad idea of connecting two grab-hooks with a draft device. The drawings and specifications show and describe the grab-hook of the patentee's invention connected up with the draft device for the purpose of showing the manner in which the grab-hooks are to be used. It seems to me that the particular grab-hooks disclosed in the patent in suit, when so connected up with the draft device, form a combination of devices adapted to perform a definite function better than the devices referred to in the patent as prior in date. The draft device is necessary to the practical use of the grab-hook, and, in my opinion, combines with grab-hooks of the patent in suit for a useful purpose; the useful purpose being materially modified by the specific construction of the grab-hook."

And again on cross-examination:

"The structure called for by the claim is the combination of two grab-hooks having the peculiar and particular construction shown and described in the patent in suit with the draft device commonly employed with grab-hooks. While, in my opinion, this is a true combination, the novelty of the combination lies in the particular and peculiar construction of the hook and its combination with the draft device, in a certain sense the addition of the draft device as an element of the claim might be regarded as unnecessary to a definition of the invention which the patentee made, though it is necessary to make a complete device for use in the skidding of logs, as I understand it, in the ordinary practice."

These extracts show clearly that the reason for reciting elements in addition to those involved in the invention, in order to form a so-called complete device,

is never expressed. In fact it seems to be rather a kind of vague instinct than a reason. As seen from the extracts above it is as though one said, "My invention relates only to a part of a machine and the statute requires me to point out the part, improvement, or combination which I claim as my invention; but I prefer to include what the public generally will recognize as a complete device: I will rely upon the courts to discover the real invention and construe the claim accordingly."

The complainant appealed from the above decision and the case was heard in the United States Circuit Court of Appeals, Third Circuit (166 O. G., 986). In affirming the decree from below, the court said in part:

"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 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 that 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. Indeed this is conceded by the patentee's counsel, and he argues that because the patent examiner, when the original claims were before him, said, 'claim 6 is incomplete without the links, and the eye in the end of the shank is useless without the other elements,' the claim as it now stands should be construed as one describing as the real invention, a specific form of grab-hook. Manifestly, we can not so construe it. The claim is for a combination of grab-hooks, of peculiar form, and a draft device. We are not at liberty to distort its plain language. It may be, as the patentee's counsel declares, that the criticisms of the Examiner led to the present form of the claim. But if the Examiner's criticisms were unsound, the patentee could have had them reviewed by an appropriate appeal. This is not a case where there was a mere change of phraseology to suit the view of an examiner. The structure of the claim was remodeled in a fundamental respect.

It was changed from a claim for an improved grab-hook to a claim for a combination of an improved grab-hook and a draft device. We are therefore compelled to read the claim as one for a combination, and not for an improved grab-hook. So read, it is clear that there is no error in the decree of the Circuit Court.

"The decree is affirmed, with costs."

Nothing could be added to this opinion of the court to make clearer the necessity that the claim be limited to the invention and not extended to include any extraneous element of the art, machine, manufacture or composition of matter of which it forms a part.

March 1, 1917.

A DISCUSSION OF THE CLASS OF CASES TREATED IN THE IN RE MCNEIL LINE OF DECISIONS

As somewhat related to the matter of the preceding paper, I submit a few remarks as to a different view of the class of cases treated in "In re McNeil, Commissioners' Decisions, 1902, page 563, a decision of the Court of Appeals of the District of Columbia, affirming and quoting almost in full a decision of the Commissioner of Patents, Commissioners' Decisions, 1902, page 313.

The decision is a very well known one and I must beg your indulgence while recalling a few of the leading facts concerning it.

Chester McNeil, on December 31, 1897, filed Application Serial No. 665,193, for an Improvement in Sewing Machines.

It appears that in the overseaming or joining together of knit goods or hosiery, the edges of the goods are liable to curl and spoil the appearance of the fabric. To overcome this defect and straighten the edges, a portion of the goods must be trimmed off in advance of the sewing.

McNeil admits in his specification that prior to his invention it had been proposed to arrange a trimmer in advance of the stitch-forming mechanism. While calling attention to the substantial identity of many elements of his device with those found in the prior art, he says: "The present invention distinguishes from all other constructions by reason of the fact that at a point intermediate the outer rows of stitching there is actually the formation of two interlocking stitches."

A number of claims were made in the case, but we need only refer to claim 1, which reads as follows:

> 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.

Borton and Willcox, No. 496,616 and Woodward 466,264, with others that do not concern us, were cited against the claim.

The Commissioner said, and the court quoted with approval:

"It is old in a sewing machine to combine a trimmer with a stitch-forming mechanism. This combination is shown in the patent to Borton and Willcox. In this patent the trimmer is arranged in advance of the stitch-forming mechanism in the line of the seam, and said stitch-forming mechanism includes devices for forming two rows of stitches.

"'The particular stitch-forming mechanism shown by appellant and which constitutes an element in the combinations of his claims is not separately claimed by the appellant. Such a stitch-forming mechanism is shown, described, and claimed in the patent to Woodward.

"'The appellant has filed affidavits under the provisions of Rule 75 to establish a date of invention of the matter claimed prior to the date of filing of Woodward's application which resulted in the grant of his patent, No. 466,264, on December 29, 1891. The Examiner has held that these affidavits are not sufficient for the purpose. Whether they are sufficient or not is immaterial from the view I take of this case.

"Borton and Willcox having invented the combination of a trimmer with a stitch-forming mechanism, it is not invention to combine a trimmer with another stitch-forming mechanism whether the stitch-forming mechanism be new or old. No new result is accomplished by appellant which differs in kind from the result accomplished by Borton and Willcox. There is no special coaction between the particular stitch-forming mechanism and the trimmer. Each acts in its own way and is not affected by the other and performs its function in the combination irrespective of the other.

> "If appellant regards himself to be the original inventor of the particular stitch-forming mechanism shown and described, he should claim it."

The logical conclusion from the above decision is that such claims as the one here considered, are allowable in the absence of prior art showing the broad combination. (This, it should be remembered is a question of allowing a claim in an application and not the very different question of deciding on the validity of a claim in a patent). This conclusion seems to the writer unfortunate.

Such a claim is believed to be faulty, capable of different constructions by the court and if interpreted strictly in accordance with its terms, unpatentable.

It is faulty in that, in all probability, it does not cover the subject-matter that the applicant intended it to cover and believes it to cover.

It is capable of different interpretations by the courts as is shown by the following decisions.

In the case of Bullock Electric & Manufacturing Co. *vs.* Westinghouse Electric & Manufacturing Co., (129 F. R., 105), the claim in question read:

> "The combination with a motor containing separate or independent circuits on the armature or field magnet, or both, of an alternating current generator containing induced circuits connected independently to corresponding circuits in the motor, whereby a rotation of the generator produces a progressive shifting of the poles of the motor, as herein described."

This was held to be a claim for the combination and not to protect the specific form of motor although the court stated that it might be true that the motor constituted the real essence of the invention.

In the case of D. H. Langan, the claim was for the combination with a pair of grab-hooks, specifically set forth, of a draft device connected with the eyes at the front end of the shanks.

This was held by the courts to cover the combination of a grab-hook with a draft device.

In the case of Steward *vs.* Thomas (Court of Appeals, D. C., 202 O. G., 1263), the claim read:

> "An electric sign receptacle comprising an insulating body carrying within it lamp receiving terminals and having also wire terminals, outwardly projecting claws carried by the receptacle and adapted to be inserted through the sign plate from the rear in any position rotarily and means in connection with said claws to grip said sign plate so as to hold the receptacle against rotation."

Though the word "combination" is not used, this is evidently just as much a combination claim as the others cited. In this case, however, the court disregarded the lamp receiving and wire terminals as immaterial and considered the claim as limited to the sign receptacle.

This form of claim is, then, sometimes construed as protecting some specifically claimed feature, and sometimes held to cover the combination. The reason for this is clear. Taking as an example the McNeil case, the applicant does not claim the combination of a stitch-forming mechanism with a trimmer, nor does he claim a specific form of trimmer. But these two subjects-matter form the only possible bases for claims and the courts, therefore, when such claims have become patented construe the claim to cover one or the other.

As long, however, as the claim is a claim of an application, construction is to be avoided and the scope of the claim must be governed strictly by its terms. If we read the claim thus, does the matter covered thereby involve invention?

As before stated, the claim does not cover the combination of a trimmer with stitch-forming mechanism since it recites specific features which do not affect the combination. Indeed, since it has been repeatedly held that what is shown and described, but is not claimed, is disclaimed and dedicated to the public, it may be said that the broad combination is disclaimed.

The claim under discussion covers one thing, and one only; namely, the substitution of a specific form of stitch-forming mechanism in a necessarily preconceived

combination of a trimmer and stitch-forming mechanism. This is not an inventive act and its result is open to rejection for lack of invention. And the quality of this act is entirely independent of whether the broad combination is found in the prior art, or claimed in other claims of the same application, or dedicated to the public.

If the patentee holding a patent with such a claim, sues as an infringer, one who uses a device involving the broad combination, but not including the specific form of the element recited specifically by the patentee, the latter must deny the materiality of every specific feature of that element. But it is well settled that if a patentee asserts an unessential feature in his claim, he can not afterward deny its materiality. (De Fever *vs.* Remington, 13 F. R., 86.)

For this reason the claim should be rejected for lack of invention and not on a reference which shows what the claim does not cover. The Commissioner in his decision in the McNeil case, states that the reference showing the specific form of stitcher might well be omitted from the rejection and it appears that the reference showing the broad combination might, with equally good logic, be dispensed with.

Of course the fact that such a claim is not allowable results from the lack of coaction between the specific form of the element and the remaining elements recited and such claims have been rejected as aggregations. This, however, is but another way of stating the same ground, since an aggregation is unpatentable because there is no invention in assembling elements that do not materially modify each other's action. The term "aggregation" has had, moreover, a most unfortunate career in patent practice and, in spite of its potential usefulness, has been so much misinterpreted and abused that it must now be used with extreme caution.

So far as the invention of a combination is concerned, the inventor expends his energy on the task of putting the elements into such relation to each other that they will produce the desired result. He may have to modify some old elements in order to put them into that relation. If so, such modification is a part of his invention of the combination. The specific form of the modified element coacts with the remaining elements to produce

the result. The specific form, therefore, enters into the invention of the combination.

If, however, the inventor, laying aside the leading idea of producing the combination, halts on his way to improve an element in the combination and modifies it in such a way as to improve the element in itself, but does not alter in any way its relations to, or its action with respect to, the related elements, then the specific form is not a part of the combination.

A combination claim reciting the specific form of that element is not a claim to the real combination because it recites structural features which do not in any way affect the combination. It is not a claim to the element specifically recited because it recites other parts independent thereof.

Either or both of these may be new and may be patentable to the applicant, but he has not pointed them out as required by the statute.

If the claim is allowed, it is in contravention of R. S. 4888 which requires that the invention be particularly pointed out and distinctly claimed.

It is true that attorneys, and to an even greater extent applicants, are far more susceptible to conviction of the unpatentability of a claim when the subject-matter it is intended to cover is shown even piece-meal in several references, than they are when the rejection is based on defects in the claim, or for lack of invention, however well-founded and logical such a rejection may be. It is expedient, therefore, to cite examples both of the broad combinations and of the specific form of the element recited specifically, if both can be found. With these before him, the applicant recognizes at once the lack of patentability of his claim.

It is intended here merely to maintain the position that the claim is not patentable in the absence of all references and that its allowance in the form presented is a fertile source of confusion.

March 1, 1917.

Patents and the Preparation and Prosecution of Applications by Applicants Themselves

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BY

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WASHINGTON, D. C.

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Patents and the Preparation and Prosecution of Applications by Applicants Themselves

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A PATENT.

A patent is a Government grant to an inventor, securing to him for the period of seventeen years the exclusive privilege of making, using and vending and of authorizing others to make, use and vend, any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof.

Patents are also granted for designs but this paper is restricted to the consideration of only such patents as are referred to in the definition just stated.

According to Walker on Patents, 4th Edition, paragraph 172:

> "Letters-Patent are documents consisting of the grant and the specification; and where drawings form a part of the application, they also form a part of the letters-patent. The grant is a paper, issued in the name of the United States, under the seal of the Patent Office, and signed by the Commissioner of Patents. It contains a short title of the invention, and purports to grant to the patentee, his heirs or assigns, for the term of seventeen years, the exclusive right to make, use and vend the invention, throughout the United States and the territories thereof; and it refers to the specification for the particulars of the invention covered by the grant, and each of the three rights granted by letters-patent is a separate substantive right."

Inventors should study the Patent Laws and the Rules of Practice in the United States Patent Office.

Pamphlet copies of the "Patent Laws" and of the "Rules of Practice" may be obtained free of cost upon request therefor addressed to the Commissioner of Patents.

The decisions of the Commissioner are published in the "Official Gazette," published weekly, and furnished to subscribers for $5.00 a year, payable in advance, and in the bound volumes of the Commissioner's Decisions, published annually and sold in law binding for $2.00 per volume and in paper covers for $1.00 per volume. Subscriptions to the Official Gazette and copies of the Commissioner's Decisions should be addressed to the Superintendent of Documents, Government Printing Office.

Throughout this paper reference to the laws is by Section number and to the Rules of Practice by Rule number.

Decisions of the Commissioner are referred to in the Official Gazette by the title of the case, and the Volume and page, as: Branna, 97 O. G., 2533, and in the Commissioner's Decisions by title of the case, year and page, as, Branna, C. D., 1901, 232.

PATENTEES.

To ascertain who may obtain a patent for an invention reference may be made to Section 4886 of the Revised Statutes, which provides 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, 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."

And to Section 4887 which, in part, provides that:

> "No person otherwise entitled thereto shall be debarred from receiving a patent for his invention or discovery, nor shall any patent be declared invalid by reason of its having been first patented, or caused to be patented, by the inventor or his legal representatives or assigns in a foreign country, unless the application for said foreign patent was filed more than twelve months, in cases within the provisions of Section forty-eight hundred and eighty-six of the Revised Statutes, prior to the filing of the application in this country in which case no patent shall be granted in this country."

And to Section 4923 which provides that:

> "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 and used in a foreign country before his invention or discovery thereof, if it had not been patented or described in a printed publication."

Such patent or printed publication if published in any country prior to the invention by the applicant is a bar to the grant of a patent in this country, but not so if the applicant made the invention prior to the date of the patent or printed publication unless the date of such patent or publication is two years prior to the date of filing of the application in this country.

It may be here noted that the date of the completion of an invention may antedate the filing of an application by a considerable period of time.

There are no restrictions to the personality of the

inventor to prevent him from obtaining a patent for his invention except as provided in Section 480, that "all officers and employees of the Parent Office shall be incapable, during the period for which they hold their appointments, to acquire or take directly or indirectly except by inheritance or bequest, any right or interest in any patent issued by the Office."

The applicant may be man, woman or child, of any nationality or color.

The law, Section 4896, even provides for the protection of the inventions of insane persons by their legally appointed conservators, guardians, or representatives and in event of the death of the inventor the patent may be applied for by the executor or administrator of the estate of the deceased inventor.

Furthermore, Section 4898 provides that the inventor may convey all or part of his interest in an invention to another, as follows:

ASSIGNMENTS.

> "Every patent or any interest therein is assignable in law by an instrument in writing; and the patentee or his assigns or legal representatives may, in like manner, grant and convey an exclusive right under the patent to the whole or any specified part of the United States.
>
> "An assignment, grant, or conveyance will be void as against any subsequent purchaser or mortgagee for a valuable consideration without notice unless recorded in the Patent Office within three months from the date thereof."

The assignment records of patents in the Patent Office are open to the inspection of the public and any recorded assignment constitutes a notice to the public of the contents of such assignment. Anyone desiring a fuller knowledge of the Patent Office assignment records should consult Mr. Magruder's valuable paper entitled "The Records of Assignments of Paper Prop-

erty" read before the Examiners of the Patent Office, May 28, 1914.

> "Patents may be granted and issued to the assignee of the inventor or discoverer; but the assignment must first be entered of record in the Patent Office. And in all cases of an application by an assignee for the issue of a patent, the application shall be made and the specification sworn to by the inventor or discoverer if he is living." Section 4895.

Rule 26 of the Rules of Practice in the United States Patent Office requires that the request of the applicant for the grant of the patent to the assignee or to the inventor and assignee as joint patentees must be embodied in the assignment and that the assignment must be entered of record at a day not later than the date of payment of the final fee; and if it be dated subsequently to the execution of the application it must give the date of execution of the application, or the date of filing, or serial number, so that there can be no mistake as to the particular invention intended.

It is important to particularly note the provisions of Rule 186 relating to assignments:

> "No instrument or writing will be recorded which is not in the English language and which does not, in the judgment of the Commissioner, amount to an assignment, grant, mortgage, lien, incumbrance, or license, or which does not affect the title (or legal ownership) of the patent or invention to which it relates. Such instrument or writing should identify the patent by its date and number; or, if the invention be unpatented, the invention should be identified by a statement of the name of the inventor, the serial number of the application and the date of filing of the application."

When an applicant has assigned his rights in an application embracing two or more inventions and such application is divided it is the uniform practice of the Office to apply to the divisional applications assignments

of the original cases and the Commissioner of Patents has said no good reason is seen why the same practice should not be applied to subsequent applications for the same subject-matter by the same inventor. Wurtz, 120 O. G., 2441.

"It is a firmly established rule that a part owner of a patent has a legal right to convey to others the right to make, use and vend the invention without the consent of his co-owners." Lalance Grosjean Manufacturing Co. *vs.* National Enameling Co., 108 Fed. Rep., 77.

"An assignee of a half interest can not prosecute the application to the exclusion of the inventor; but, on the contrary, the inventor can prosecute it to the exclusion of every one save the assignee of the entire interest." 113 O. G., 850; C. D., 1904.

"An assignee of an equitable interest in an invention has the right to inspect the file and obtain copies of the same." Hertford, 113 O. G., 851; C. D., 1904.

Inventors should carefully note the distinction between the terms "joint inventors" and "joint patentees." Joint inventors are persons who have jointly discovered and developed an invention. Joint patentees are persons who are joined in the grant but who were not joined in discovering and developing the invention.

The term "joint inventors" does not properly belong to an inventor and one who has received a grant of a part interest in the invention. The inventor and the assignee may become joint patentees (Section 4895).

INFORMATION FOR CORRESPONDENTS.

All business with the Office should be transacted in writing in compliance with Rules 1, 2, 8, 9 and 10 of the Rules of Practice.

To avoid delay in obtaining information from the Office, applicants should particularly note and comply with the requirements of Rule 8.

When a letter concerns an application, it should state the name of the applicant, the title of the invention, the serial number of the application and the date of filing the application. Rule 9. If the letter is in response to an examiner's action on the case the letter should refer

to such action by the words "in response to the Office Letter of . . . " and to further facilitate correspondence, in response to an examiner's action the letter should refer to the examiner's division by the caption—"Before the Examiner in Division . . ."

Applicants should preserve lineal and verbatim copies of all papers filed in the Office to facilitate making amendments and corrections.

The Office can not respond to inquiries as to the novelty of an alleged invention in advance of the filing of an application for a patent, nor to inquiries propounded with a view to ascertaining whether any alleged improvements have been patented, and, if so, to whom. Rule 14. Should the inventor desire to ascertain what has already been done by predecessors in a certain line of invention he can purchase a "Classification Index" from the Commissioner of Patents at a cost of twenty-five cents. He can then obtain from the Commissioner an estimate of the cost of all of the patents in a selected class or sub-class of inventions or he may order any number, as, the last ten of the patents granted in that particular class or sub-class, the cost of which will be five cents each, payable in advance. A study of these patents will generally give the inventor a fair idea of the state of the prior art and will also furnish him with examples of the character of drawings and specifications required and the nature of what his claims should be. If he does not wish to purchase a copy of the Classification Index, he may write to the Commissioner asking for an estimate of the number of patents relating to his particular invention, describing it in general terms, as—spring jaw rat traps, rotary egg beaters, disk harrows, etc., and after such information has been obtained he may purchase as many copies of such patents as he desires.

"The Office can not act as an expounder of the patent law, nor as counselor for individuals, except as to questions arising within the Office." The Office can not undertake to advise an inventor whether his invention infringes, or, if patented, whether his patent is infringed by others. Such questions are for the courts to decide

when the questions are properly brought before them for decision.

> "Of the propriety of making an application for a patent, the inventor must judge for himself. The Office is open to him, and its records and printed drawings pertaining to all patents granted may be inspected either by himself or any attorney or expert he may call to his aid." Rule 14.

Since this paper is prepared for the assistance of inventors who desire to prepare and prosecute their applications for patents without the assistance of an attorney, reference will not be herein made to attorneys except to say that although an applicant or an assignee of the entire interest may prosecute his own case, he is advised, unless familiar with such matters, to employ a competent patent attorney, as the value of patents depends largely upon the skilful preparation of the specification and claims.

The Office can not aid in the selection of an attorney.

THE APPLICATION.

> "A complete application comprises the first fee of $15.00, a petition, a specification, and oath; and drawings, when required." Rule 30.

> "An application will not be placed upon the files for examination until all its parts shall have been received." Rule 31.

When a complete application has been filed in the Application Division of the Office, it is given a serial number in its regular order and the applicant is notified of its serial number and its date of filing. A record of the application is made in the Application Division to identify the application and the division to which it is sent for examination.

The examination of the application on its merits is made in the Examiner's division in accordance with the provisions of Section 4893.

All the papers of a complete application should be

attached together and deposited in the Office at the same time; otherwise a letter must accompany each part accurately and clearly connecting it with the other parts of the application.

STATUTORY REQUIREMENTS OF APPLICATIONS.

The Statutes require a written application comprising a specification and claim:

> "Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and the manner and process of making, constructing, compounding and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from the other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor." Section 4888.

To properly prepare a specification and claims requires a thorough knowledge of the Patent Laws and Office Rules of Practice and skill in writing clear, technical descriptions of inventions. These qualifications are acquired by specification writers only by long study and constant practice.

The preparation of an application is the subject-matter of Rules 30 to 55.

The requirements of a petition are stated in Rule 33 and perhaps the best way of preparing a satisfactory petition is by following the proper form from the Ap-

pendix of Forms. It will be noted that there are seven forms given and of these seven but one is the proper one to be copied.

"It sometimes happens that the petition does not refer to or identify a specification. Such a petition is defective." Mason, 43 O. G., 627; C. D., 1888.

"It (the petition) does not itself disclose the invention, and is therefore incomplete unless it refers to some paper which does disclose it." Buddington, 84 O. G., 1728; C. D., 1898.

SPECIFICATION.

By referring to the forms for a specification given in the Appendix of Forms published in the Rules of Practice, it will be observed that all specifications begin with the set or formal words "To all whom it may concern:" followed by a paragraph constituting a formal preamble which should be copied verbatim, with the blanks filled in, and the proper title of the invention substituted for that given therein.

All the requirements of Rules 34 to 40, inclusive, of the Rules of Practice should be closely stuided and observed in the preparation of the specification.

The full first name of the applicant should be given in the preamble and if the first name resembles an abbreviation of a well-known name, as Fred or Jack, or a diminutive form of a name, as Harry or Johnnie, the oath or affidavit of invention should have added to it a statement that the first name as given by the applicant is his full first name.

"The form of applicant's name should appear the same in the different places in the papers constituting an application. Where different forms appear, one of them presumably a corruption or nickname, an affidavit will be required stating which is the correct form of the applicant's name. Where the incorrect form appears in the preamble, correction may be made by amendment. Where the abbreviated form or nickname appears in the signature, the patent may issue after filing of the affidavit above referred to." Clark, 124 O. G., 910; C. D., 1906.

"Where a foreigner declares his intention of becoming a citizen of this country, he remains a citizen of the foreign country until his citizenship of this country becomes effective." Rhodes, 105 O. G., 1261; C. D., 1903.

Following the preamble there should be a general statement of the object and nature of the invention. This should, in a few well-selected words, state in general terms the purpose of the invention and in what it consists, see examples in the "Appendix of Forms" before referred to.

"A statement of invention should not be made in a specification which amounts practically to a mere repetition of the claims in different language." Edwards, 137 O. G., 1711; C. D., 1908.

In recent years it has become customary to reduce the statement to a mere formality such as:

> "The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereunto appended."

Such statement appears to be sufficient since the courts look to the claims for the definite statement of the invention.

If the invention is capable of illustration the statement of invention in the specification should be followed by a brief description of each of the several figures of the drawing.

Then should follow a detailed description of the invention with reference to each of the several parts by a reference numeral applied to such part in each of the several figures of the drawing. If the reference numeral be applied to the part it represents in each of the several figures of the drawing, it will greatly assist in reading and understanding the drawing.

The detailed description should start with the framework, if the specification be that of a machine, and work towards the details. Everything necessary to a clear understanding of the invention should be described referring in the specification to the parts of the drawing by

reference numerals and no important part of the invention should be overlooked. But it is not necessary to mention every bolt or connection, nor should dimensions be stated unless essential.

At the end of the detailed description in the specification should be the words "I claim" followed by one or more formal claims and the signature of the inventor.

Rule 34, founded upon section 4888, requires the description "to be in such full, clear, concise terms as to enable any person skilled in the art or science to which the invention or discovery appertains or with which it is most nearly connected, to make, construct, compound and use the same."

By persons skilled in the art is meant persons having the usual or expected skill of those engaged in that art. Not those having the highest skill, but those having the average skill and intelligence of persons engaged in the business to which the art relates.

> "A patent is addressed to those having a peculiar and technical knowledge of the subject." Webster Loom Co. *vs.* Higgins, 105 U. S., 580; 54 O. G., 388; C. D., 1888.
>
> "If the description of a patent be so vague and uncertain that no one can tell, except by independent experiments, how to construct the patented device, the patent is void." De Lamar *vs.* De Lamar Mineral Co., 54 C. C. A., 272; 117 Fed. Rep., 240.

One would not be required to describe his invention in the glass maker's art in such terms as to be understood by those engaged in felt hat making, or vice versa, although there might be many engaged in the hat making art who would understand a clear specification of the invention in glass making. The terms used by the glass maker might be familiar to the ears of glass makers generally, yet strange and unintelligible to the hat maker.

"The specification must set forth the precise invention for which a patent is solicited, and explain the principle thereof, and the best mode in which the applicant has contemplated applying that principle, in such

manner as to distinguish it from other inventions." (Rule 35.)

The specification should not merely define in general terms the type to which the invention relates but should direct the description to just what has been invented by the applicant. The prior art is presumed to be known to those skilled in the art, and to describe in a specification what is already known is not the purpose of a specification. Sometimes it is permissible to refer briefly to the prior art for the purpose of more clearly bringing out by comparison the distinction between the applicant's invention and the prior art but the main reliance for the distinction should be the full, clear and distinct description of what the applicant has invented.

"It is not necessary to state what others have failed to do, but merely what the applicant has done. If the invention is a pioneer, it will receive a liberal construction because of that fact, if claimed, whether or not a statement to that effect is included in the descriptive part of the specification. A statement such as, 'Many attempts have been made to impart drying properties to the non-drying fatty oils in combination with pigments, but, up to the present time, all such attempts have failed and these oils are still unsuitable for use for many purposes' should be omitted." Blakeman, 98 O. G., 791; C. D., 1902.

"A party may in his specification distinguish between what is old and what is new, but there is no warrant for permitting a party to recite the history of the art as he understands it, together with statements as to the disadvantages of the several old forms and the advantages of his invention thereover, or to illustrate in his drawings the old devices which he regards as constituting the prior art." Wadsworth, 92 O. G., 1798; C. D., 1900.

"Statements should not be included in the specification which are merely laudatory of the applicant's invention." Blakeman, 98 O. G., 791; C. D., 1902, and

"Matter which is of an advertising nature will not be permitted." Wellington, 113 O. G., 2218; C. D., 1904.

The specification should not be verbose, nor should it refer to prior art in disparaging terms. Should the specification be objectionable on these grounds, it would

be the duty of the Examiner to require the cancellation of such remarks.

"Under no circumstances should an applicant in his specification make derogatory statements as to the inventions of others; within reasonable limits he may point out the advantages of his invention and indicate also what he regards as the defects or delinquencies common to structures representing the unimproved art." Heylman, 126 O. G., 1066; C. D., 1907.

"The Office will not knowingly permit a patent to contain a false suggestion of fact which may mislead the public to its prejudice." Lewis & Ungerer, 106 O. G., 543; C. D., 1903.

> "In case of a mere improvement, the specification must particularly point out the parts to which the improvement relates, and must by explicit language distinguish between what is old and what is claimed as new; and the description and the drawings as well as the claims, must be confined to the specific improvement and such parts as necessarily cooperate with it." (Rule 36.)

If the applicant has invented a yieldable pitman for a mowing machine it is not necessary to describe an entire mowing machine nor even the specific construction of cutter bar with which the pitman is connected. It is enough to say that the pitman was designed for use in a mowing machine, although not restricted to that use since it might be useful in other machines.

It has been held that where the claims were directed to the bearings and mode of connecting the driving device of a centrifugal machine the title "Centrifugal Machine" did not correctly indicate the nature and design of the invention as required by section 4884, Revised Statutes.

"The specification of a patent is sufficient if it fully discloses the principle of the invention and it is not necessary that the relation of the parts should be stated with mathematical exactness." Hancock *vs.* Boyd & Getty, 170 F., 600.

"The discussion of the theoretical result to be attained by the use of the invention is not proper matter for a patent specification. A specification for a patent should

be confined to a description of the structure of the device and the manner of its use. Such matter, while proper for advertising circulars, should not be included in a specification which is to form part of a patent." Wellington, 113 O. G., 2218; C. D., 1904, 564.

"Where a patent discloses means by which a novel and successful result is secured, it is immaterial whether the patentee understands or correctly states the theory or philosophical principles of the mechanism which produces the new result." Van Epps *vs.* United Box Board & Paper Co., 143 F., 869.

If not inaccurate, the applicant may use the terms with which he is most familiar to describe his invention.

"It is the policy of the Office to permit an applicant in describing his invention to select his own terms of reference so long as their use does not lead to ambiguity." Hollis, 86 O. G., C. D., 1899; Petzold, 58 O. G., 1091; C. D., 1892.

"A patentee in describing his invention may assume that what is already known in the art is understood and may begin at the point where his invention begins and describe what he has made that is new and what it replaces of the old." Carnegie Steel Company *vs.* Cambria Iron Co., 99 O. G., 1066; C. D., 1902.

"The operation of the invention should be set out in the specification." Bradford and Chatfield, 152 O. G., 731; C. D., 1910.

"Where a specificatoin fails in any material respect to make the invention fully known and accessible to the public skilled in the art to which the invention relates, it is fatally defective, and the patent based upon it ipso facto becomes void." The Tannage Patent Co. *vs.* Zahn, 71 O. G., 1161 (1895).

"When a specification requires to be supplemented by experiment and inventive skill, it is fatally defective and the patent is void." Id.

CLAIM.

"The specification must conclude with a specific and distinct claim or claims of the part, improvement, or combination which the applicant regards as his invention or discovery. (Rule 37.)

"A patentee's claim is the measure of his right to relief, and while the specification may be referred to to limit the claim it can never be made available to expand it. McClain *vs.* Ortmayer, 57 O. G., 1129; C. D., 1891.

"The terms of the claim are coextensive with the description of the patent." Perrin *vs.* Manhattan Ry. Co., 69 O. G., 1209 (1893).

"The true meaning of claims must be gathered by comparing them with the context of the specification." Celluloid Co. *vs.* Arlington Mfg. Co., 64 O. G., 1263 (1893).

"Where the claims in a patent are not supported by a description in the patent, such claims are of no validity." Pacific Cable Ry. Co. *vs.* Butte City Street Ry. Co., 66 O. G., 1758 (1894).

Walker says:

"It is a proper practice to make a generic claim and also a specific claim, in an application for a patent on a generic invention, even where only one species is described in the specification. In such a case, if the inventor's understanding that his invention is primary turns out to be true, both claims will be valid. But, if some invention is afterwards discovered in the prior art, which relegates the patent to a secondary place, the specific claim may stand and be valid, though the generic claim is too broad to be maintained." Walker on Patents, 4th Ed., sec. 116.

"A claim should itself clearly set forth the structure which it is intended to cover, and not merely by the use of reference letters refer to the drawing and specification for a disclosure of it. A claim which relies entirely upon reference letters to indicate structure is objectionable." Osborne, 92 O. G., 1797; C. D., 1900.

The claim must be complete in itself and definitely outline and limit the invention.

"It is no more permissible on principle to refer to the description for some of the limitations which should be and are intended to be included in a claim than it is to refer to the description for all of the limitations." Shepler, 102 O. G., 468; C. D., 1903.

"If the claim does not include sufficient mechanical elements to effect the function stated, it will be rejected

on the ground that it does not comply with section 4888 of the Revised Statutes." Hoge, 173 O. G., 1081; C. D., 1911.

Nor should a claim be verbose or prolix.

"A claim may be so prolix as not to comply with the requirements of the statute that an applicant 'shall particularly point out and distinctly claim the particular improvement or combination which he claims as his invention or discovery." Iagan, 162 O. G., 538; C. D., 1911.

"Claims will not be allowed merely because they represent a multitude of elements all of which do not appear in one or two or even more references." Sheppler, 102 O. G., 468; C. D., 1903.

The elements specified in claims for combinations should be substantive and tangible.

"An 'opening' should not be made a positive or direct element in combination claims, for the reason that an opening is not a tangible thing. It can exist only in connection with some other elements. If it is desired to describe this element as provided with an opening there is no objection to such a course." Davin, 100 O. G., 452; C. D., 1902.

"A claim for an article of manufacture should not, as a rule, be defined by the process of producing it; but when an article of manufacture is a new and useful thing and embodies invention and can not be properly defined except by reference to the process of producing it, a case is presented which constitutes a proper exception to the rule." Painter, 57 O. G., 999; C. D., 1891. Scheckner, 106 O. G., 765; C. D., 1903, 315.

"Where a claim to an article refers to an etched plate. This is not objectionable on the ground that it defines the article by the process of making it, since etched plates have well-known physical characteristics." Scheckner, 106 O. G., 765; C. D., 1903, 365.

"One can not have a valid patent for a principle or law of nature. But, having invented and practically exemplified a process for utilizing this principle he is entitled to a patent for that process." U. S. Supreme Ct. in Tilghman *vs.* Proctor, 19 O. G., 859; C. D., 1881, 163.

"A principle covers every mode, apparatus or process that accomplishes the result." Id.

Claims must not be worded to merely set forth a result. They must define a composition, a structure, a process or a method.

"It is a well-settled law that a patent can not issue for a result sought to be accomplished by the inventor of a machine, but only for the mechanical means or instrumentalities by which that result is to be obtained. One can not describe a machine which will perform a certain function and then claim the function itself and all other machines that may be invented by others to perform the same function." Gardner, 140 O. G., 256; C. D., 1909.

"But where a claim distinctly specifies a certain structure which is adapted to perform a particular function there is no objection to setting that function out in the claim." Hoge, 173 O. G., 1081; C. D., 1911.

"If the claim does not include sufficient mechanical elements to effect the function stated, it will be rejected on the ground that it does not comply with section 4888 of the Revised Statutes." Id.

"An applicant can not be permitted to use in his claims terms which are indefinite and general in their meaning without such qualifying words as shall make clear what is intended to be covered by them and shall be expressive of the purpose, location or function of the elements intended." Hamilton, 85 O. G., 1742; C. D., 1898.

"The terms of description used in the claims should accurately describe the construction disclosed in the application." Mueller et al., 118 O. G., 270; C. D., 1905.

"A claim should not be drawn in an alternative form even where the alternative elements are equivalents, but should use some broad term of description which will include both forms."

"A claim including a description of an element as 'brick or the like' is alternative in form and is indefinite, since the word 'like' fails to identify the characteristics of the substance." Caldwell et al., 120 O. G., 2125; C. D., 1906.

The phrase "brake or locking device" is either alternative or so inapt to define the desired construction as to be objectionable on the ground of indefiniteness." Leon, 164 O. G., 250; C. D., 1911.

"To merely state in a claim the function or result with-

out first including therein the structure by means of which the function or result is obtained renders a claim vague and indefinite." Kotter, 95 O. G., 2684; C. D., 1901.

"A statement of the purpose, result, operation, or advantages of a mechanical invention should not be included in the claims, but should be embodied in the specification. The claims should be limited to statements of structure." Schweitzer, 97 O. G., 1371.

"In a combination claim the use of the word "means" limited by a statement of function has long been recognized as the proper method of stating an element of the combination." Young *vs.* Eick, 113 O. G., 547; C. D., 1907.

"Where the invention claimed is a combination the term 'means' followed by a statement of function is properly readable on a structure in which such means consists of more than one element." Lacroix *vs.* Tyberg, 148 O. G., 831; C. D., 1909.

"To imply as elements of a claim parts not named therein for the purpose of limiting its scope, so that it may be accorded novelty is contrary to a well-settled rule of patent law." Fred'k R. Stearns & Co. *vs.* Russell, 84 O. G., 1434; C. D., 1898.

"Where an element is mentioned in a claim and intended to be included as an elment of the combination it is in the interest of clearness and good form to positively and directly include it instead of making an indefinite reference to it." Vincke, 96 O. G., 2061; C. D., 1901.

A claim may be had because it does not set out a complete combination or because it includes more than is necessary.

"A patent based on an alleged combination which is inoperative without the addition of another element is void." Terrant *vs.* Duluth Co., 39 O. G., 1425 (1887).

"It is fatal to a patent for a process that a patentee claims as essential a step which is unnecessary." Van Camp *vs.* The Maryland Pavement Co., 43 O. G., 884 (1888).

"It is unnecessary to include in the claim such words as 'substantially as described' since the law makes the description a part of the patent, and therefore the claim must be construed with reference to the description

whether the words are included or not." Shepler, 102 O. G., 468; C. D., 1903.

"The Patent Office in determining the meaning and legal effect of a claim regards the presence or absence of the words 'substantially as described' as immaterial." Id.

"A claim which differs from another merely by the use of the words 'substantially as described' can not be permitted in the patent, since the words impart no definite limitation into the claim where used." Id.

"An applicant should not needlessly multiply 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." Griffith, 85 O. G., 936; C. D., 1898.

"The practice of presenting a needless multiplicity of claims of substantially the same scope is to be condemned." Kadow, 154 O. G., 1412; C. D., 1910.

"Where the claims in an application are drawn to cover a mechanical structure capable of performing several functions and the claims differ from each other only in the statements of function attributed to the device it has been held that the claims are substantial duplicates, for upon elimination of the statements of function each claim would cover the same combination of elements." Jacobson, 107 O. G., 1378; C. D., 1903.

"Where the invention can be clearly defined by means of four claims, the presentation of twelve claims is objectionable because then the claims are unnecessarily multiplied." Carpenter, 112 O. G., 503; C. D., 1904.

"Where it appears that one claim includes limitations not found in the other, such claims are not duplicates." Massie, 113 O. G., 2505; C. D., 1904.

"An applicant may properly in one case have claims covering the principal or essential steps of a process and other claims including those steps, together with other specific steps which are not absolutely necessary to the performance of the process, but which add to its efficiency or make its operation more perfect." Oxnard & Baur, 88 O. G., 1526; C. D., 1899.

If there are more than one claim they should be consecutively numbered.

"It is to avoid confusion in examining cases that claims must be numbered in consecutive or regular order." Tuttle, 102 O. G., 1781; C. D., 1903.

DIVISION.

"An applicant is permitted to show several species of an invention when the state of the art permits a claim to be presented and allowed which is broad enough to cover all of the species shown and described." Hereshoff, 106 O. G., 1779; C. D., 1903.

"He may include in one case generic claims and claims to one species, but may not include claims limited to different species." Dallas, 106 O. G., 996; C. D., 1903; Eagle, C. D., 1870, 137.

For example:

"Joints for metal plates have acquired a distinct status in art and manufacture and one form may be used as a substitute for another. Two forms constitute two species of the invention and can not be claimed in the same case." Burmeister, 101 O. G., 662; C. D., 1902.

"Two different constructions for fastening calks to horseshoes constitute independent inventions although both might be used on one shoe." Rodinbaugh & Laurentz, 101 O. G., 1830; C. D., 1902.

DRAWINGS.

> "When the nature of the case admits of drawings, the applicant shall furnish one copy signed by the inventor or his attorney in fact." Section 4889.

Formerly the specification and drawing were both required by statute to be signed by the inventor, or the drawing might be signed by the attorney in fact, and the signatures were required to be attested by two witnesses. Now, however, by recent amendments to the Statutes and to the Rules of Practice in conformity therewith, the requirement for witnesses is not made.

When the invention can be illustrated by drawings the formal and technical requirements of the Rules of Practice concerning drawings should be strictly observed, and, inasmuch as the artistic requirements of patent drawings are beyond the ability of most inventors and applicants, applicants are advised to employ competent draftsmen to make drawings for them. If the services of such are

not available elsewhere, the Office will furnish drawings at cost to the applicant as promptly as the draftsmen can make them.

"The statute requiring a drawing means one 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 is whether it can be illustrated." Edgerton, 101 O. G., 1131; C. D., 1902.

"It is a great desideratum of Patent Office drawings that they should tell their story to the eye without making it necessary to go into the specification for explanation; which should be apparent upon inspection." Sturtevant et al., 108 O. G., 563; C. D., 1904.

"Where the invention relates to the arrangement of engines, tanks, receivers, and connecting pipes and valves all of known construction, diagrammatic illustration is probably clearer than views showing parts in detail." Clark, 109 O. G., 2169; C. D., 1904.

"When possible, a drawing should be so complete that the purpose and operation of the invention may be readily understood by one skilled in the art by a mere inspection of the drawing." Hartley, 97 O. G., 2746; C. D., 1901.

"Where a conventional device is referred to in the specification and it does not form part of the invention it should either be illustrated in a conventional way, in order that any one skilled in the art can understand from a mere inspection of the drawings what the device is, or if it is illustrated in an unconventional way an amendment should be made to the specification clearly describing the construction and operation of said device." Morse, 97 O. G., 2982; C. D., 1901.

"It is not necessary in Patent Office drawings that the exact proportions of the parts should be indicated. All that is required is that such an operative device be shown that one skilled in the art can make and use the same." Creveling, 98 O. G., 1708; C. D., 1902.

The drawing must show the structure so completely as to enable one skilled in the art to construct it.

"It is not sufficient for the purpose of a Patent Office drawing that the illustration be such that a person skilled in the art could supply the parts not shown; but when

possible the drawing should be so complete that the purpose and operation of the machine illustrated may be readily understood by one skilled in the art by means of a mere inspection of the drawing." Motsinger, 110 O. G., 601; C. D., 1904.

"Where a party discloses two or more forms of some of the elements of his invention in the drawings and claims 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." Welch, 93 O. G., 2104; C. D., 1900.

"A modification of the invention should not be shown in dotted lines on the same figure which shows the preferred form in full lines, but should be shown if at all, in separate figures and in full lines." Badger, 97 O. G., 1696; C. D., 1901.

"When the application fully discloses the construction of the alleged invention which is of general application, the illustration of the invention applied to a particular use will not be required." Perkins, 142 O. G., 855; C. D., 1909.

"The number of sheets of a drawing in an application should not be greater than is necessary to clearly illustrate the invention." Roadhouse, 111 O. G., 1368; C. D., 1904.

"Nor should the drawing include matter which is unnecessary and ineffective for a clear understanding of the invention claimed." Anderson, 113 O. G., 2504; C. D., 1904.

"There are two principal reasons for the rule requiring drawings to be limited to as few sheets as possible consistent with a clear showing of the invention; one is that it has now come to be a serious problem to find space for the storage of drawings, whether they form a part of a patent or of an abandoned application, and the other is that it is a useless expense to photolithograph an unnecessary number of sheets of drawings for the purpose of attaching the same to patents." Pfautz, 159 O. G., 489; C. D., 1910.

OATH.

Section 4892 requires that the inventor shall make oath to certain matters therein mentioned and Rule 46 further requires that the oath shall be signed by the inventor.

In case of the death of the inventor the application and oath may be made by his executor or administrator, and in case of the insanity of the inventor the application and oath may be made by his legally appointed guardian, conservator or representative. Section 4896. (Rule 25.)

The acknowledgment of the oath before a notary, or other proper officer designated in section 4892 and Rule 47, should be executed shortly before filing the application in the Office.

The form of the oath should be copied from that given in Form No. 18 in the Appendix of Forms in the Rules of Practice. Particular attention should be given the explanatory footnotes concerning the blanks to be filled in in the form. By carefully following the directions delay and annoyance will be avoided.

If the full first name of the applicant resembles an abbreviation of a nickname the oath should have added to it the words "and the first name as given by the applicant is his full first name."

An additional oath will be required under Rule 46 where the delay in filing the application after the execution of the original oath is longer than three weeks in addition to the time which may naturally be expected to be required in transmitting the papers by mail to the Patent Office. Branna, 97 O. G., 2533; C. D., 1901, 232.

EXAMINATION.

On the filing of the application and the payment of the filing fee an examination will be made in compliance with section 4893, and if any claim is found to be unpatentable for any reason whatever, it will be rejected under the provisions of section 4903, which also gives the applicant the privilege of amending the claim or asking for a reconsideration on the merits.

The order of examination of applications is stated in Rule 63.

"Applications must be examined in regular order; the Office can not give one case precedence over others because of the applicant's business arrangements which are dependent upon a speedy allowance of the patent." Bischoff, 100 O. G., 2603; C. D., 1902.

In an action on the merits of a case in the examination thereof—

"Rule 66 merely requires that an Examiner in citing references shall, if the pertinence of the same is not obvious, clearly explain the grounds upon which he has rejected the claims. It is necessary only that the Examiner's position be made plain upon the record, so that the applicant may intelligently amend his claim or present his case for appeal. The rule does not require that the Examiner shall 'meet' every argument advanced by an applicant." Stier, 110 O. G., 599; C. D., 1904.

"Where the Examiner has clearly and explicitly given his reasons for rejection yet admits that the disclosure of the references is not in all respects identical with the applicant's disclosure, on which the rejected claim is based the provisions of Rule 66 have been complied with and the issue between the Examiner and the applicant should be determined on appeal." Fletcher, 114 O. G., 545; C. D., 1905.

"In many cases a mere statement that the claims are rejected on specified references is sufficient, in view of the character of the invention; but in all cases where references are grouped together it should be clearly stated whether the claims are anticipated by each of the references separately or in what manner the references are to be combined." Harris, 140 O. G., 756; C. D., 1909.

"When the pertinency of the references is obvious, as where the disclosure is simple or includes only the invention of the applicant, a detailed application of the references is unnecessary." Inman, 160 O. G., 1038; C. D., 1910.

"But where an Examiner rejected claims upon an 'old way' of doing a thing and upon request of the applicant refused to make a particular citation of this old way or to furnish the affidavit required by Rule 66, there is no excuse for failure on the part of the Examiner to be guided by the Rules of Practice, particularly where the

language admits of but one construction." Garms, 93 O. G., 190; C. D., 1900.

"Where an applicant is attempting in good faith to further the prosecution of his application the Office should give him all reasonable assistance." Starr, 106 O. G., 263; C. D., 1903.

"If any doubt exists as to the interpretation placed by the Examiner upon a feature of the drawing or portion of one specification, he will furnish an explanation in response to a specific request making clear the uncertainty existing in the mind of the applicant." Lincoln, 127 O. G., 3216; C. D., 1907.

AMENDMENTS.

"When claims are rejected as anticipated by prior patents they should be amended, if possible to set out the difference between the applicant's construction and that shown in the patent; the differences must be indicated in the wording of the claim. The patentability of claims can not properly be predicated on alleged differences of construction whch are not specified therein. McNeil *vs.* Sturtevant, 124 O. G., 2177; C. D., 1906.

In amending his specification, drawings or claims the requirements of Rules 68 to 78 should be observed and closely followed.

The heading of an applicant's letter amending an application should have the name of the inventor, title of the invention, serial number, and date of filing placed in one corner, at the top of the page, and in the opposite corner of the page should be placed the division number and room number, which may be found at the top of the Examiner's letters. The applicant's letter should be addressed to "The Commissioner of Patents" and should open with the clause "In response to the Office action of (date) amendment is hereby made as follows:"

Following the specific directions for amendment should be the "remarks," signature of the inventor, and the date of the letter.

"The applicant when amending his case by canceling rejected claims should request that the claims be renumbered consecutively. Should he neglect to do so the Examiner may properly so renumber them and the ap-

plicant should be notified of the renumbering." Tuttle, 102 O. G., 1781; C. D., 1903.

"Amendments to an application should be actually signed by the applicant or his attorney with pen and ink or equivalent writing material. Amendments signed by means of a rubber stamp will not be accepted." Minehan, 134 O. G., 1298.

"When there has been an assignment of an undivided part of an invention the amendments to an application must be signed by both the inventor and assignee." (Rule 6.)

"It is a well-settled practice of the Office that an amendment can not be entered in part, since for the Examiner to undertake to enter an amendment so far as it is responsive and to refuse to enter the remainder thereof would lead to endless confusion." Hodge, 173 O. G., 1079; C. D., 1911.

"A substitute specification is objectionable and in general should not be filed unless required by the Office in view of the number and nature of the amendments to the original specification." Oreweiler, 170 O. G., 481; C. D., 1911, 100.

REQUESTS FOR RECONSIDERATION.

"A mere request for second consideration without explanation or argument, and without 'distinctly and specifically pointing out the supposed errors in the Examiner's action,' Rule 69, is not sufficient to entitle an applicant to reconsideration." Appel, 84 O. G., 1145; Krejci, 121 O. G., 1011; C. D., 1906.

"Should the applicant file a paper containing merely such request it would be proper for the Examiner to inform the applicant that the paper is not responsive to the Examiner's action and should the proper response not be filed by the applicant within the year running from the date of the Examiner's previous action the application will become abandoned." La France, 105 O. G., 262; Busenbenz, 117 O. G., 600; C. D., 1905.

The action of the applicant should be fully responsive to the Examiner's action.

UNRESPONSIVE AMENDMENTS.

"Should an applicant present an amendment canceling two of his six rejected claims and substitute others therefor and take no action whatever as to the remaining claims, the action would be considered unresponsive and insufficient to save the application from abandonment." Schmitt and Tanody, 121 O. G., 688; C. D., 1906.

"Where the Examiner has made requirements as to matters of form and has found that any of the claims are allowable, an amendment which does not comply with the requirement of matters of form or point out wherein they were improperly made is not completely responsive." Fox, 211 O. G., 955; C. D., 1915.

AMENDMENTS TO DRAWINGS.

"Where an applicant makes claims to a certain feature of an invention clearly described in the specification but not illustrated in the drawing an amendment to the drawing illustrating the feature described and claimed is justified." 110 O. G., 1428; C. D., 1904, Zwiebel.

"Where photographic prints of the original drawings have been made part of the record, it is permissible to make slight changes in the original drawing, but not such changes as practically obliterate the identity of any of the original figures." Kuhlman et al., 102 O. G., 229; C. D., 1903.

Permissible changes in the construction shown in any drawing may be made only by the Office and after an approved photographic copy has been filed (Rule 72). No changes should be made in the drawings until the approval of the Examiner of the proposed changes has been obtained.

SUPPLEMENTAL OATH.

"Where an amendment is filed claiming matter not covered by the original statement of invention or claim, a supplemental oath should be attached to the amendment, since an oath to matter presented for the first time after filing is just as important as is the original oath." Rurich & Bode, 106 O. G., 765; C. D., 1903.

"An applicant for a patent may properly file new claims

in the Patent Office without verification where they are within the invention disclosed in the specification and drawings and narrower than the original claims." Gen'l Elec. Co. *vs.* Morgan Gardner Electric Co., 168 F., 52.

NEW MATTER.

"New matter can not be inserted in a case by amendment simply because the invention originally shown is inoperative and the amendment will make it operative." (Ex parte Snyder, 22 O. G., 1975; construed) Willits, 115 O. G., 1064.

"Mere clerical or draftsman's errors may be corrected where the errors are clear from the application itself; but changes can not be made in the application based upon allegations of fact not shown in the record." Id.

"Matter not originally shown in a second application can not be entered therein by amendment, although shown in a prior application abandoned in favor of the latter application." Hagey, 173 O. G., 1081; C. D., 1911.

"Matter can not be read into a case or inserted merely because it was invented before the application was filed and was intended to be included." Dow *vs.* Converse, 106 O. G., 2291; C. D., 1903.

"A general statement in the original specification as to a modification of the invention does not warrant an amendment to the drawing showing a species of the invention not originally disclosed." Mothes, 113 O. G., 1146.

"The fact that no claim is made to new matter inserted by amendment furnishes no good reason for permitting it to remain in the case." Id.

FINAL REJECTION.

"Where an applicant files an argument traversing the action of the Examiner and the Examiner insists upon his action without citing new reasons for rejection, a final rejection is in order." Casselman, 102 O. G., 230; C. D., 1903.

"Where the amendments or reasons presented by an applicant in response to an action by the Office do not necessitate the citation by the Examiner of additional

references or reasons, applicant's rights to further prosecution of the application before the Examiner is at an end, and the permission of further amendment is within the discretion of the Office." Miller, 139 O. G., 730; C. D., 1909.

"Where the Examiner points out certain formal objections in his letter finally rejecting the claims of an application the final rejection is not thereby rendered premature." Green, 130 O. G., 299; C. D., 1907.

AMENDMENTS PRESENTED AFTER FINAL REJECTION.

"Where after a final rejection an amendment was filed directing that the finally rejected claims be canceled and presenting new claims, held that a statement that neither the applicant nor his attorney had looked for a final rejection and in view of the Examiner's action applicant was willing to take narrower claims was not such a showing as required by Rule 68." (Citing Ex parte Miller, 91 O. G., 1033); Dietrick, 174 O. G., 829; C. D., 1911.

That the importance of features covered by proposed claims was previously overlooked is not a sufficient excuse for failure to file them before final action. Nettles, 107 O. G., 541; C. D., 1903.

That an applicant did not properly understand the invention is not a sufficient reason to warrant the admission of an amendment after final rejection. Schmidt, 100 O. G., 2602; C. D., 1902, 327.

An amendment presenting new claims filed after final rejection will be refused admission where the applicant has had ample opportunity to present such claims and the only excuse given for failure to do so was that it did not appear to be desirable until he was convinced that the broader claims presented were unpatentable in view of the references cited. Lange, 163 O. G., 727; C. D., 1911.

An applicant will not be permitted after a final rejection to file an amendment canceling the original rejected claims and inserting in lieu thereof new claims if such new claims differ in scope from the original claims and are not merely the original claims presented in better form. Landsing, 96 O. G., 2063; C. D., 1901, 129.

A party can not demand the admission of an additional claim after final rejection as placing the case in better forms for appeal, since if it differs from other claims it affects the merits. Downing, 100 O. G., 2176; C. D., 1902, 317.

SUBSTANTIVE PATENT LAW.

In preparing claims in an application an applicant should know that in the patent law—

"A combination as claimed is an entirety and disappears with the removal of one of its elements, and therefore it is a stated principle of law that where an element of the combination claimed is omitted there is no infringement." Lane *vs.* Levi, 104 O. G., 1898; C. D., 1898.

"No one is an infringer of a combination claim unless he uses all the elements thereof." Cimiotti Unhairing Co. *vs.* American Fur Refining Co., 116 O. G., 1452; C. D., 1905.

"Where claims cover a product disclosed in references the fact that the references propose to produce the product by different processes is immaterial." Pratt, 224 O. G., 1407; C. D., 1916.

"Under the court decisions the introductory phrase is not an element of the combination and does not limit the claim to such apparatus." Casler, 90 O. G., 448; C. D., 1899.

The Circuit Court of Appeals has 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. Langan v. Warren Axe and Tool Co., C. D., 1911.

The mere function or effect of the operation of a machine can not be the subject-matter of a lawful patent but a process is something different.

"A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts,

performed upon the subject-matter to be transformed to a different state or thing. If new and useful, it is just as patentable as a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable, while the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence." Cochrane *vs.* Deener, C. D., 1877, 242; 94 U. S., 78.

Applicants unfamiliar with patent laws frequently can not understand why their claim is rejected on two or more patents, taken together. To such, the decision of Assistant Commissioner Newton in Ex parte McCollum, as follows, may be of assistance:

"When legitimate combination claims . . . are rejected on two or more references, the trend of the best authorities indicates that at least one of the references ordinarily should show the general combination claimed. . . . Then if the specific features claimed and shown by the other reference or references may be substituted without such changes as require invention and perform the function intended the two references may be legitimately combined against the claim; otherwise not. . . .

Legitimate combination claims are for constructions or mechanisms for performing a function, and it is improper to reject them on ideas extracted from various references unless those ideas are accompanied by constructions that may be put together without so changing them as to require invention to adapt them to perform the desired result.

In determining the patentability of a claim found only in a plurality of references, it is necessary to consider the structural differences specified in the claims, as well as their functional difference or result. If the structures of the several references can not be combined without the exercise of invention, even though the result is old the claims should be allowed. If the structures of the references may be combined or substituted one for the other and the combined function or result is new, the claim should be allowed. It is only when both the structural features found in the references may be com-

bined without invention to meet the structure called for by the claim and the function or result involves no invention that the claim should be rejected." McCollum, 204 O. G., 1046; C. D., 1914.

DESCRIBED IN PRINTED PUBLICATION.

A device is "described in a printed publication" within the meaning of the Revised Statutes, section 4886, and therefore not patentable as a new invention, where it is shown in the drawings of a prior patent. Keene et al. *vs.* New Idea Spreader Co., C. C. A., 230 O. G., 1185; C. D., 1916.

The question whether a patented device is the result of invention, or only mechanical skill, is one of fact. Id.

Where the elements of a combination claim were not merely old, but in point of equivalency had for years been devoted to the same uses in the same art and with substantially like results, the combination shows mechanical skill rather than invention. Id.

While a patented combination may not be anticipated by any single prior patent, such patents showing elements of the combination, are a part of the prior art, properly to be considered on the question whether invention or only mechanical skill was required to make the combination. Id.

COMPOSITION OF MATTER.

Where a claim for a composition of matter gives the names of the substances which are to be mixed together without stating any relative proportion, so that it would require experimentation to determine what proportions were necessary to secure the described result, the claim is void for failure to describe the invention in such full, clear and exact terms as to enable a person skilled in the art to practice the invention. Panze *vs.* Battle Island Paper Co., 138 F., 48.

Where the only novelty involved in a device lies in the proportions of the parts and the description does not set forth these proportions, the patent therefor must be invalid for lack of sufficient description. Electro-Dynamic Co. *vs.* Westinghouse Electric & Mfg. Co., 191 F., 506.

EQUIVALENTS.

The range of equivalents depends upon the extent and nature of the invention. If the invention is broad and primary in its character, the range of equivalents will be correspondingly broad under the liberal construction which the courts give to such inventions. Continental Paper Bag Co. *vs.* Eastern Paper Bag Co., 136 O.G., 1297; C. D., 1908.

IMPROVEMENT IN DEGREE.

The mere carrying forward of an original conception, resulting in an improvement in degree simply, is not invention. Keene et al. *vs.* New Idea Spreader Co., C. C. A., 230, O. G., 1185; C. D., 1916.

CLAIMS OF UNWARRANTED BREADTH.

Claims broader than an applicant's conception, presented for the purpose of covering something different than the essential elements of the applicant's idea of means would be rejected.

An applicant will not be allowed claims made broader than the essential element of his idea of means by the use of indefinite terms or by the omission of things essential to his idea as conceived and disclosed. Fritts, 237 O. G., 737; C. D., 1916.

APPEALS.

Should an applicant traverse the propriety of a final rejection of his claim by an Examiner he may appeal from such rejection to the Examiners-in-Chief as provided in Rules 133 to 137.

INTERFERENCES.

An applicant, unless he has had previous experience, is advised against attempting to personally prosecute an interference proceeding should he be advised by the Office that his claim interferes with that of another applicant. The prosecution of an interference proceeding is so technical and complicated as to require the services of a competent patent attorney.

March 8, 1917.

The Statutory Grounds of Rejection

A paper read March 15, 1917, before the Examining Corps of the United States Patent Office

BY

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In the following pages the object will be to group the various grounds of rejection according to their arrangement in the Revised Statutes. The sections of the statute will appear in numerical order; under these the subjects will be taken up in the order in which they are mentioned in the particular section under discussion; and under these main subjects the various branches will usually be considered in what seems to be their logical order, except under the subject of invention, where the branches will be considered alphabetically.

This paper is by no means exhaustive of any of the subjects treated, and the plan as outlined will make it necessary at times to briefly cover, from another viewpoint, the ground gone over in papers read by others before the examining corps, but this will be avoided as far as possible.

Section 4886.

Invention.

Attitude of Judges.

As regards the merits of an invention the attitude of an examiner should be the same as that of a judge, and he should regard the patentee's problem as of a time antedating the application, and should, therefore, not too readily accept the *ex post facto* wisdom of the bystander. (Railway Supply Co. *vs.* Hart Steel Co., 217 O. G., 699.)

Benefit of Doubt.

It has been the general policy of the law to extend to an inventor the benefit of any doubt with respect to the

presence or absence of invention. (Jones *vs.* Evans, 207 O. G., 609.) The Commissioner would be fully justified in reversing this rule where an applicant has prolonged the prosecution of his application for a period of years, knowing that the device covered thereby has gone into public use. (*In re Pope*, 225 O. G., 739.) It has also been held that the rule of reasonable doubt applies rather to the existence and method of operation of an alleged anticipation than to the question of patentability over such an anticipation once established. (*Ex parte* Pope, 222 O. G., 1055.)

Considerations Affecting the Presumption of Patentability.

Advantages resulting from a novel arrangement or device are persuasive of invention (Jones *vs.* Evans, 207 O. G., 609; Horton Mfg. Co. *vs.* White Lily Mfg. Co., 208 O. G., 655; Cadillac Motor Car Co. *et al.* *vs.* Austin, 222 O. G., 379) even if the patentee at the time of making his application did not know of the advantages or failed to express them. (Morgan Engineering Co. *vs.* Alliance Machine Co., 157 O. G., 1244.)

Affidavits that deal more in conclusions and general expressions of opinion than in fact are entitled to no weight. (*In re* Garrett, 122 O. G., 645.)

Article of Manufacture.

An article of manufacture is no more patentable without invention than a machine. (*Ex parte* Wattles, C. D., 1873, p. 50.)

Departure from Prior Teachings of the Art.

Idea Likely to be Discarded at First Thought.

Where these conditions exist it is usually safe to assume that the idea is not obvious. (Pieper, Pieper, and Ritter *vs.* The S. S. White Dental Mfg. Co., 220 O. G., 349; National Tube Co. *vs.* Mark *et al.*, 209 O. G., 329.)

Durability, Economy, and Efficiency all contribute to the conclusion that invention is present. (Union Carbide Co. *vs.* American Carbide Co., 160 O. G., 493; *In re* Eastwood, 144 O. G., 819.)

Failure of Others skilled in the art after repeated efforts is evidence that the discovery required more than mechanical skill. (Expanded Metal Co. *et al. vs.* Bradford *et al.*, 143 O. G., 863.)

Inference From Same Solution of a Problem by a Number of Persons.

The same solution of a problem by many persons indicates that no great exercise of inventive talent was called into play. (Scale Co. *vs.* Scale Co., 119 O. G., 1586.)

Novelty—Popularity—Satisfaction of a Well-Recognized Need—Utility.

A transfer ticket fulfilling all these conditions was held to involve invention, although very simple in structure. (Cincinnati Traction Co. *vs.* Pope, 204 O. G., 675.) Novelty and utility, however, do not constitute the only test of invention. (Boss *vs.* Thomas, 162 O. G., 1183.)

Popularity.

Extensive Use is evidence of utility, but not conclusive of patentability. (Boss *vs.* Thomas, above.)

Advertising—Business Ability—Exploiting.

Extensive use secured by such means is of no value in determining the question of patentability. (Hyde *vs.* Minerals Separation, Limited, *et al.*, 210 O. G., 397.)

Displacement of Rivals will not make that patentable which is clearly not so. (*In re* Heintz, 151 O. G., 1014.)

Popularity Notwithstanding Increased Price was regarded as pregnant evidence of novelty, value, and usefulness, in Columbia Metal Box Co. *vs.* Halper, 216 O. G., 664.

Tardy Discovery of a Useful and Needed Device indicates invention (*In re* Eastwood, 144 O. G., 819; Miehle Printing Press and Mfg. Co. *vs.* Whitlock, 218 O. G., 1155), but mere lapse of time does not. (Brill *vs.* Washington Railway and Electric Co., 215 U. S., 527; Æolian Co. *vs.* Wanamaker, 221 F. R., 666.)

Transfer and Adaptation of Old Device to New Situation.

Clearer proof of invention in making the necessary adaptations is required if the transfer is from an analogous art than if from a remote art. The value of such adaptations should also be considered. (Potts *vs.* Creager, 70 O. G., 494.) Certain devices are common to the arts as a whole because they are adapted for use in many situations. (*Ex parte* Morgan, 176 O. G., 275; *In re* Morgan, 179 O. G., 577.) After a device from one art has been adapted and incorporated into a machine in another art it is not invention to adapt an equivalent device from the same art to the same machine. (Crown Cork and Seal Co. *vs.* Sterling Cork and Seal Co., 218 O. G., 875.)

Simplicity in an Old and Highly Developed Art is often the highest evidence of inventive genius. (Railroad Supply Co. *vs.* Hart, 217 O. G., 699.)

Simple Changes Where Theoretical Judgment in Advance is Not Convincing allow less room for assuming that there is no invention than under ordinary conditions. (Cadillac Motor Car Co. *et al.* *vs.* Austin, 202 O. G., 1259.)

Small Articles may be patentable though the differences are slight. (Thomas *vs.* Steward, 202 O. G., 1259.)

The State of the Art at the Time an invention is made is what determines patentability. The state of the art may be shown by a patent, a printed publication, or other proof. (Millett and Reed *vs.* Duell, Commissioner of Patents, 96 O. G., 410.)

Well Developed Art.

A patent for a lifting-jack was held void although it was observed that this art affords slight opportunity for inventive genius. (Elite Mfg. Co. *vs.* Ashland Mfg. Co., 234 O. G., 374.)

Tests for Determining the Existence of Invention.

Aggregation—Combination.

An aggregation of elements is not patentable, while a combination is patentable if novel. In Pickering *vs.* McCullough (104 U. S., 310) it was held that in a patentable combination of old elements, all the constituents must so enter into it that each qualifies every other. It

has since been held to be sufficient if the elements are associated in a unitary structure and these cooperate to produce either a new mode of operation or a new result or the old result in a modified and new way. (Railway Supply Co. *vs.* Hart Steel Co., 217 O. G., 699.)

Mediation of Operator or Thing Operated Upon may be the only tie by means of which the elements coact. (Krell Auto-Grand Piano Co. *vs.* Story & Clark, 206 O. G., 313.)

Mediation of Operator.
Governed by Rules of Conduct.

Printed waiters' slips and a ruled record sheet, together with the promulgation of rules for their proper use, were held to be of doubtful patentability. (Hotel Security Checking Co. *vs.* Lorraine, 155 F. R., 298.)

It has also been held that a calculating machine which will not unfailingly give correct results, but requires elaborate rules and calculations for deducing the correct results from the indicated results, is not an operative device. (Carlin *vs.* Crumpton, 228 O. G., 1093.)

Combination Broadly Old.
Invention in Element Thereof.

This is a proper ground of rejection, but the Examiner should cite references to show the old combination. (*Ex parte* Mumford, 206 O. G., 878.)

Omission to Specify Relation of Elements Where the Result Depends Upon Such Relation makes the claim cover a mere aggregation. (*Ex parte* Shipman, 220 O. G., 1720.)

Incomplete Combination—See Utility, below.

Article Defined Only by the Source from Which the Material is Obtained.

Claims so defining the article are unpatentable. (*Ex parte* Cake, 188 O. G., 807.)

Change of Material is not patentable (Union Hardware Co. *vs. Selchow,* 112 F. R., 1006) unless it involves a departure from the prior teachings of the art (Edison

Electric Light Co. *vs.* U. S. Electric Light Co., 61 O. G., 564) or is accompanied by the discovery of new and unknown properties, or the discovery that long-sought-for results can be achieved. (Union Hardware Co. *vs.* Selchow, above.) Incidental changes in structure or in method of construction do not make the change of material patentable. (Drake Castle Pressed Steel Lug Co. *vs.* Brownell & Co., 123 F. R., 86.)

Compact and Convenient Arrangement of parts may be patentable. (*Ex parte* Child., 231 O. G., 919.)

Discarding Elements of Prior Devices may be patentable if the machine prior to such change was not arranged to operate in the same way as afterward, although possibly it was capable of being made to so operate. (Eck *vs.* Kutz, 132 F. R., 758.)

Discovery of a Defect and Supplying a Remedy, Though the Latter is Obvious may be sufficient to constitute invention. (Miehle Printing Press & Mfg. Co. *vs.* Whitlock, 218 O. G., 1155; Hobbs *vs.* Beach, 94 O. G., 2357.)

Double Use.

It is not invention to use an old machine for a new purpose. (Roberts *vs.* Ryer, C. D., 76, p. 439; Northwestern Fire Extinguisher Co. *vs.* Philadelphia Fire Extinguisher Co., 18 Fed. Cases, 394; *In re* McNeil and Sturtevant, 126 O. G., 3424; Ransome Concrete Machinery Co. *vs.* United Concrete Machinery Co., 161 O. G., 754.) But the person who takes the device and, by improvements thereon, adapts it to a different industry, may draw to himself the quality of inventor, and if the transfer be to a remote art and supercedes other methods, the courts will look with a less critical eye upon the means employed in making the transfer. (Potts *vs.* Creager, 70 O. G., 494.)

Making in Distinct Parts That Which Was Before Made in One Piece does not ordinarily involve invention. (*Ex parte* Thurston, 117 O. G., 2361).

Making in One Part That Which Was Before Made in Several Parts does not involve invention unless the change produces a more useful result. (Canada *vs.* Michigan Malleable Iron Co., 124 F. R., 1486).

Mechanical Skill—New Result.

Mere mechanical skill is not invention, but if a new result is produced there is more than mechanical skill. (*In re* Merrill, 199 O. G., 618; Jones *vs.* Evans, 207 O. G., 609.)

Omission of a Step from a Process with an Improved Result is patentable. (Lawther *vs.* Hamilton, 42 O. G., 487.)

Reversal of Parts is not invention. (*In re* McNeil and Sturtevant, 126 O. G., 1345.)

Substitution of Equivalents is not invention. (Walker on Patents, Section 36.)

Replacing an Archaic Device in a Combination with a Modern One is not invention. (*Ex parte* Pope, 222 O. G., 1055.)

State of the Art—Combination of References.

Whenever a claim is rejected on a combination of references the real ground of rejection is lack of invention, and the references constitute evidence of the prior art, from which the question of invention may be determined. For example, when all the elements of the claim are not found in a single patent and two or more references are required to show the invention, the ground of rejection is not prior patenting, but want of invention. Under proper restrictions, some of which are stated below, this is a legitimate ground of rejection, the essential thing being that the state of the art shows lack of invention. (Keene *et al. vs.* New Idea Spreader Co., 230 O. G., 1185; Floorsheim *vs.* Schilling, 137 U. S., 64; Dilg *vs.* Borgfeldt, 189 F. R., 588; *Ex parte* Allport, 220 O. G., 1374). It is believed that this rule holds good even if the combined references would, if taken separately, present different statutory grounds, such as a patent claiming substantially the rejected combination, in view of a publication or a patent disclosing but not claiming an equivalent element of the patented combination.

All Elements of a Combination or Their Equivalents Must Appear in a Single Reference. (Ottumwa Box Car Loader Co. *vs.* Christy, 209 O. G., 683; *Ex parte* McCollum, 204 O. G., 1346.) Of course this rule does not apply to aggregations.

Reorganization of Old Elements, taken from different references, is patentable, where the structures can not be put together by the exercise of mechanical skill. (*Ex parte* Whitelaw, 219 O. G., 1237; *Ex parte* McCollum, above.)

Novelty in Organization or Result. If such a condition exists the combination should not be rejected on a combination of references. (*Ex parte* McCollum, above.)

Combining Patent and Prior Invention—Application for the Latter Filed Later than Application for the Anticipated Patent, is proper when taken together they show lack of invention. (Westinghouse *vs.* Chartiers Valley Gas Co., 435 F. R., 582.)

Combining Two Patents, Applications for Both Copending with Application for the Anticipated Patent but of earlier filing date, was permitted in support of the defense that the patentee of the patent sued upon was not the first and original inventor. (The citation in this case has been lost. The writer would be pleased if one of his readers could furnish it to him. The initials of the anticipating patentees are C. and H., and that of the anticipated patentee is McC.)

Prior Patents to Patentee—One Pending Concurrently With and the Other Patented More than Two Years Prior to Application for the Patent in Suit.

This combination of references was held to defeat the patent in Karl Keifer Machine Co. *et al.* *vs.* Unionwerke A. G., 218 F. R., 847.

Prior Foreign Patent to Applicant for Substantially Same Thing in Connection with Old Devices. See *Ex parte* Meloon, cited under section 4887, below.

"Has Invented"—Completion of Invention.

The wording of section 4886, "Any person who has invented" of course requires that the person who obtains a patent must have completed the act of invention. This subject will be treated under sections 4904 and 4920.

Inoperative Devices.

Devices like perpetual motion machines are inoperative because they are incapable of performing any useful function, even though they will run when power is

applied. Such devices lack utility and may be rejected on that ground. Other devices are inoperative because the inventor has failed to notice or to remedy some defect that keeps the device from operating at all, such as a short-circuited electro-magnet or a mechanism that will lock itself and break when power is applied. Devices inoperative in the latter respect also lack utility, but are often regarded as incomplete inventions, especially when presented as proof of reduction to practice. If the defect can be remedied without the exercise of invention, the applicant may be permitted to change his description and drawings.

Novelty.

A new assemblage of old elements should not be rejected for lack of novelty even if it is only an aggregation. (Walker on Patents, Section 66.) Novelty is not negatived by any prior accidental production of the same thing unaccompanied by knowledge on the part of the producer sufficient to enable him to repeat that production. (Walker on Patents, Section 67.)

Old Article Made by a New Process is not novel. (*In re* McNeil, 200 O. G., 583.)

Old Article made of Material Obtained from a New Source is not novel. (*Ex parte* Cake, 188 O. G., 807.)

Utility.

Utility is absence of frivolity and mischievousness, and utility for some beneficial purpose. (Robinson on Patents, Vol. 1, Section 339, Note 1.)

Process Claims Which Lack Steps Necessary to Produce Useful Results should be rejected for want of utility. (*In re* Creveling, 117 O. G., 1167; *Ex parte* Fritts, 227 O. G., 737.)

Instruments of Precision which Sometimes Give Incorrect Results lack utility. (McKenzie *vs.* Cummings, 24 App. D. C., 137; Carlin *vs.* Crampton, 288 O. G., 1093.)

Incomplete Combinations should be rejected. (*Ex parte*

McClellan, 59 O. G., 1763.) A claim lacking an element essential to the operation of the device was held void for not describing an operative combination in Torrant *vs.* Duluth Lumber Co: 30 F. R., 830. Inoperativeness here might be considered either as lack of utility, or want of combination and therefore lack of invention because there is no new and useful result. In Wellman *vs.* Midland Steel Co., 106 F. R., 221, it was held that if the claim omits an element essential to make the combination operative it must be read into the claim. Here the omission seems to be regarded as a mere formal defect. Nevertheless in the practice of this office incomplete combination is a ground of rejection, appealable to the Board of Examiners-in-Chief and ultimately to the court. It should be remembered, however, that a claim for a combination is not void simply because it fails to include devices for uniting the elements, which readily suggest themselves to one skilled in the art, or which are disclosed as means for the purpose (Brammer *vs.* Schroeder, 106 F. R., 918), and it also should be remembered that subcombinations need not be operative when detached. In this case their utility resides in the fact that they contribute to the usefulness of the whole combination. (Thompson-Houston Electric Co. *vs.* Black River Traction Co., 135 F. R., 759.)

Statutory and Non-Statutory Subject-Matter.

A Method or Means of Producing a Beneficial Result or Effect is Patentable but the Result or Effect is Not Patentable. (*In re* Gardner, 140 O. G., 258.)

The Function of a Machine or the Effect Produced by it is not patentable subject-matter. (Corning *vs.* Burden, 15 How., 252.)

An Operation that can be Performed by Only One Specific Mechanism, is not a true process. (*In re* Cunningham, 102 O. G., 824.)

Processes Which Involve Chemical or Other Elemental Action are true processes. (Risdon Iron and Locomotive Works *vs.* Medart, C. D., 1895, Page 330.)

Processes Which may be Carried Out by Mechanism are Not Necessarily Unpatentable. (Expanded Metal Co. *et al. vs.* Bradford *et al.*, 143 O. G., 836.)

Processes which may be Performed by Machinery or by Simple Manipulation, such as making bags, weaving hammocks, etc., may be patentable. (Westinghouse *vs.* Boyden Co., 83 O. G., 377.)

So Controlling a Force of Nature as to Make it do What is Wanted is a proper art. (The Telephone Cases, 43 O. G., 377.)

Article of Manufacture.

A product of nature such as the fibre of a particular variety of pines, eliminated in full lengths from the pine needles, is not patentable. (*Ex parte* Latimer, 46 O. G., 1638.)

An old substance in crystalline form may be patentable if it possesses superior efficiency, durability, etc. (Union Carbide Co. *vs.* American Carbide Co., 160 O. G., 493.)

Prior Knowledge and Use.

Prior Knowledge must be of the thing itself, not of a drawing or description thereof or an application therefor. (Jolliffe *vs.* Waldo *vs.* Vermeer and Schorik, 234 O. G., 671.)

Recollection by a Person in this Country of Knowledge Obtained in a Foreign Country is not prior knowledge in this country. (Doyle *vs.* Spaulding *et al.*, 27 O. G., 300.)

Lost Arts are patentable when rediscovered, regardless of the length of time they have been lost, provided no one can recall and reproduce them without the aid of the description of the subsequent discovery. (Mason *vs.* Hepburn, 84 O. G., 147.)

Prior Use must be so far understood and practiced as to be an established fact, accessible to the public, and contributing to the sum of human knowledge. (Diamond Patent Co. *vs.* S. E. Carr Co., 216 O. G., 327.)

Must be More Than Incidental or Casual. (Same.)

Prior Patents

must be issued before the invention in question and contain so full a description and claim of the identical invention that one skilled in the art can practice it without further invention. (Robinson on Patents, Vol. III, Section 963.)

Prior Patents Not Claiming the Invention anticipate the invention if they sufficiently disclose it (Millett and Reed *vs.* Duell, Com'r. of Patents, 96 O. G., 1241) although the ground of rejection is not prior patenting, but prior publication or prior invention, of which the patent is evidence. An applicant whose claims have been rejected on such a patent may overcome the patent under Rule 75 unless the patent was granted more than two years prior to the rejected application.

Prior Foreign Patents have been treated in another paper read before the examining corps.

Foreign Patents Lapsed by reason of failure to pay annual taxes are sufficient for rejection on the ground of prior patenting. (Sirocco Engineering Co. *vs.* B. F. Sturtevant Co., 213 O. G., 1447.)

Expired Patents should doubtless be considered as prior patents the same as lapsed patents.

Prior Patent to the Same Inventor not Claiming the Invention becomes a bar if the later application is not filed until more than two years after the grant of the patent. (*Ex parte Griffith*, 186 O. G., 557.) See below under heading "May Obtain a Patent Therefor" for further decisions on double patenting.

Sufficiency of a Patent as an Anticipation.

Claims for an article may be rejected on a patent for the process of making it, which clearly discloses the article whether the described and claimed process of making the article is inoperative or not. (*Ex parte* Griffith, 186 O. G., 557; *In re* Decker, 162 O. G., 999.) Claims may also be rejected on a mere "paper patent" if it fully describes the invention (Hyde *vs.* Minerals Separation, 210 O. G., 397), or on a patent which is defective in minor details of construction, if the principle of the invention is embodied in the patent. (Van Epps *vs.* Board and Paper Co., 143 F. R., 169.)

Fugitive Structure Existing Only at One Step in the Patented Process of Manufacturing an Article, is not a reference. (Railway Supply Co. *vs.* Hart Steel Co., 217 O. G., 699.)

Mere Mention of a Number of Possible Equivalents, some

of which probably would not serve the purpose in view, is not a sufficient disclosure. (*Ex parte* Steinmetz, 224 O. G., 363.)

Printed Publications.

A Mere Suggestion in a Foreign Publication is not enough to warrant a rejection.

Drawings Alone, in a patent which does not describe or claim the invention, are sufficient to constitute a printed publication if they clearly disclose the invention. (Keene *et al. vs.* Ideal Spreader Co., 230 O. G., 1185.)

Public Use and Sale.

Use for the Purpose of Trade and Profit mainly is not experimental although the use is incidentally for experimental purposes, and use for experiment, with incidental profit is experimental use. (Smith and Sprague Mfg. Co. *vs.* Sprague, 41 O. G., 1037.)

Submitting the Invention to a Competitive Test by Experts is not public use. (The U. S. Rifle and Cartridge Co. *vs.* The Whitney Arms Co., 11 O. G., page 373.)

Dismantling a Machine After Public Use does not avoid the statutory bar. (Am. Ballast Co. *vs.* Ballast Co., 217 O. G., 340.)

Abandonment of the Invention.

To the Public. This may be accomplished either by express declaration or by conduct (Kendall *et al. vs.* Winsor, 21 How., 322), and when it is done the act can not be recalled. (Pennock and Sellers *vs.* Dialogue, 2 Peters, 1.)

Invention Must First be Reduced to Practice. (Gary *vs.* Hale, C. D., 71, page 129.)

Failure to Claim Matter Disclosed in a Patent without reservation or a distinct patent therefor has been held to be a dedication to the public. (Mahn *vs.* Harwood, 30 O. G., 657; Ide *vs.* Trorlicht, 115 F. R., 137; Brown *vs.* Guild, 23 Wall, 181; Adams Electric Railway Co. *vs.* Railway Co., 77 F. R., 432.) This subject is treated in *Ex parte* Mullen and Mullen, 50 O. G., 837.

Abandonment that Does not Bar a Later Inventor. Such

Abandonment is not Negatived by an Alleged Intention to Resume the Invention Unless the Intention is Corroborated by Acts of the Party. (Farmer *vs.* Brush, 17 O. G., 150.)

Concealment or Failure to Make the Invention Public forfeits the benefit of the original date of the invention. (Farmer *vs.* Brush, above; Bates *vs.* Coe, 98 U. S., 31; Mason *vs.* Hepburn, 84 O. G., 147; Kendall *vs.* Winsor, 21 How., 322.)

Concealment After Reduction to Practice for a long period forfeits to others the right to a patent (Dutcher *vs.* Jackson, 225 O. G., 738), but mere delay in applying for a patent does not. (Oliver *vs.* Felbel, 100 O. G., 565.)

Long Neglect to Perfect Rights Not Excused by Notice to Manufacturers of the dilatory party's claim to be the original inventor (Gray *vs.* Hale, C. D., 71, page 129), or by

Occasional Attempts to Secure Aid (Same), or by

Alleged Poverty, if the person carries on similar enterprises demanding money and friends. (Same.)

Failure to Insert a Claim for an Invention in a Pending Application Within a Reasonable Time after Issuance of a Patent to Another for the Invention constitutes abandonment. (*In re* Fritts, 227 O. G., 742; Rountree *vs.* Sloan, 277 O. G., 744.)

Failure to Make a Generic Claim Until the Right of Another has Accrued to a narrow claim for a similar invention estops the dilatory party from making the broad claim. (*In re* Fritts, 227 O. G., 742.)

Abandonment of Application After Winning an Interference, without making the invention public, forfeits the invention to the losing party if the winning party filed no preliminary statement. (Jolliff *vs.* Waldo *vs.* Vermeer and Schorik, 234 O. G., 671.)

Neglect to Renew a Forfeited Application When Others are in the Field. See Notes on section 4897, R. S.

"MAY . . . OBTAIN A PATENT THEREFOR."

Double Patenting.

The quoted words indicate that only one patent for an invention may be granted to the inventor.

A Subsequent Patent May Not be Sustained For an Invention Claimed in a Former Patent to the same inventor. (Century Elec. Co. *vs.* Westinghouse, 207 O. G., 1289).

Or For an Invention Not Patentably Different Therefrom (Same), regardless of the dates of filing of the respective applications. (Horton Mfg. Co. *vs.* White Lily Mfg. Co., 208 O. G., 650.)

Patents to Same Inventor Based on Concurrently Pending Applications do not anticipate each other, if they do not claim the same invention. (Anderson *vs.* Collins, 122 F. R., 451; Century Elec. Co. *vs.* Westinghouse, 207 O. G., 1249.)

Patents or Applications with Claims for Inventions Not Patentably Different, Inventor Having Been Compelled to Divide.

Under these circumstances the court sustained both patents in Benjamin Elec. Co. *vs.* Dale, 158 F. R., 6171, but an application was rejected on the earlier patent in *Ex parte* Isherwood, 231 O. G., 1211.

Rejection of Claims on Application by the Same Inventor in the Issue and Claiming the Same Invention is proper practice. (*Ex parte* Gaboury, 37 O. G., 217.)

The last word in the phrase "obtain a patent therefor" clearly refers to the thing invented. An applicant is not entitled to a patent for something which he has not invented. It follows that

Undue Breadth of Claims is a proper ground of rejection under this section of the statute.

Claims generic to a Whole Class, Although Some Species are Incapable of Accomplishing the Result, should be rejected on the ground of undue breadth. (Richards *vs.* DuBon, 97 F. R., 96; Treibacher *vs.* Chemical Co., 209 O. G., 1689; Mattheson *vs.* Campbell, 79 O. G., 686; Consolidated Elec. Light Co. *vs.* McKeesport Light Co., 73 O. G., 1289; *Ex parte* Steinmetz, 224 O. G., 363.)

Attempt to Cover a Wholly Different Art After Long Delay in Prosecution of Application, is sufficient reason for rejection on the same ground. (*Ex parte* Fritts, 227 O. G., 373.)

Attempt to Include as Another Element A Mere Arrangement of the Real Elements was forbidden because of lack of disclosure. (*Ex parte* Fritts, 227 O. G., 737.)

Section 4887.

Substance of the Statute.

A foreign *patent* granted to applicant in any country is not a *bar* if filed less than 12 months before filing of his U. S. application.

A foreign *application* in a country granting reciprocal privileges gives same force and effect to a U. S. application by the same inventor filed within 12 months as if the latter had been filed at the date of the foreign application, *Unless* the U. S. application is filed more than 2 years after public use or sale in U. S., or filed after the device has been patented or described in a printed publication for 2 years.

An Applicant is not Free from his Foreign Patent as a Bar Even if the Foreign Patent Issued to his Assignees Without his Knowledge. (*Ex parte* Meloon, Decision by the Board of Examiners-in-Chief, Appeal No. 8054, April 20, 1915, Serial No. 367,099; Patent No. 1,198,743.)

Or if the Application Presents Features Unpatentably Different from the foreign Patent. (Same.)

British Patents—Complete and Provisional Specification. Bar Begins to Run From Date of Provisional Specification which Ripens into a Patent. (Bastian *vs.* Salisbury, 225 O. G., 1106.)

Bar Does Not Run From the Date of an Abandoned Provisional Specification if the invention disclosed in the complete specification is not substantially the same as that disclosed in the provisional specification and the British patent bears the date of the complete specification. (*Ex parte* Hayes, 209 O. G., 1317.)

Production of Certified Copy of the Foreign Application is required of one who makes a declaration of priority based on a foreign patent. (Art. 4 of the International Convention, 205 O. G., 1022.)

Foreign Application as a Constructive Reduction to Practice. Applicant Given Benefit of Date of Amendment of Such Foreign Application. (Bissell *vs.* Fottinger, 212 O. G., 689.)

Section 4888.

Sufficiency of Description.

In case of a process it is enough if the inventor describes his method with sufficient clearness to enable those skilled in the art to understand what the process is, and if he points out some practicable way of putting it into operation. (The Telephone Cases, 43 O. G., 377.)

Description Supplemented by General Use and Construction by Skilled Workmen, is also sufficient. (Karl Kiefer Machine Co. *vs.* Union-Werke A. G., 218 F. R., 874.)

Errors That Do Not Mislead have been held immaterial. (Mattheson *vs.* Campbell, 79 O. G., 686.)

Disclosure of Some Particular Mode or Apparatus by which the Process may be Applied is necessary in a patent for a process. (Tighlman *vs.* Proctor, 19 O. G., 859.)

Proportions of Ingredients of a Composition of Matter are required. (Wood *vs.* Underhill, 15 How., 1.)

Claims.

Failure to Particularly Point Out the Invention Sought to be Claimed is a ground of rejection. (*Ex parte* Iseman, 79 O. G., 868.)

It is to be noted that under this section of the statute the inventor must particularly point out and distinctly claim the part, improvement, or combination which he *claims* as his invention, not necessarily his invention. If he clearly claims something which is not his invention, as in the case of undue breadth of claims, the claims should be rejected under some other section, probably section 4886, as herein before pointed out.

Comprehensive Words and Phrases—"Means, Mechanism," etc.

In *Ex parte* Pacholder, 51 O. G., 295, a distinction is made between claims in which such words as "means" are coupled with a mere function or result, which are bad, and those in which such words are coupled with a mode of operation, which are proper. The same view

seems to have been taken later by the Court of Appeals of the District of Columbia. (In *re* Gardner, 140 O. G., 258.)

In Davis Sewing Machine Co. *vs.* New Departure Co. (212 O. G., 1057), it was held that such words are proper where used with reference to connecting parts or the field in which the real invention lies, but that when used with reference to the exact point of novelty they might expose the claims to attack on the ground that they are functional.

Attributing a Function to Something (a Beam of Light) Which Merely Cooperates With one of the Particular Elements of the Claim to Produce the Function is not permissible. (*Ex parte* Fritts, 227 O. G., 737.)

Structural Limitations in Process Claims are of doubtful propriety (*Ex parte* Frasch, 117 O. G., 1166; *In re* Fessenden, 226 O. G., 1081), but in Lawther *vs.* Hamilton *et al.*, 42 O. G., 487, the Supreme Court of the United States indicated that crushing seeds between rollers is a proper step of a process. This, however, is but another way of specifying the act of crushing by rolling, as distinguished from pounding or grinding.

Multiplicity of Claims Not Patentably Different warrants the rejection of one claim upon another. (*Ex parte* Whitelaw, 219 O. G., 1237.)

Mere Use of an Apparatus Covered by Another Claim is not proper subject-matter for a separate claim, even if patentable by itself. (*Ex parte* Krause, decision by the Board of Examiners-in-Chief, June 7, 1915; application No. 8439, now patent No. 1,198,039.)

Section 4897.

Renewal Applications.

Patents Granted Upon Renewal Applications Subject to Same Statutory Defenses as Original Applications. (The U. S. Rifle and Cartridge Co. *vs.* The Whitney Arms Co., 11 O. G., 373.)

"Such Invention or Discovery"—

Matter Not Disclosed in the Original Application is not permitted in the claims of the renewal. (Karl Kiefer Machine Co. *vs.* Union-werke A. G. 218 F. R., 847.)

"*Abandonment Shall be Considered as a Question of Fact.*"

This proviso contemplates the possible abandonment of the invention notwithstanding there may have been no formal abandonment of the application. (Mason *vs.* Hepburn, 84 O. G., 147; Warner *vs.* Smith, 84 O. G., 311; Cain *vs.* Peak, 86 O. G., 797.)

Any state of facts which constitutes abandonment under Section 4886 also constitutes abandonment under Section 4887. (Barber *vs.* Wood., 207 O. G., 299.)

Neglecting to Renew and Withholding Invention After a Rival Enters the Field amounts to abandonment of the invention. (Barber *vs.* Wood, 207 O. G., 209.)

Mere Filing of Another Application by a Rival During Forfeiture of an Application is not sufficient ground for holding the invention abandoned. (Barry *vs.* Long and Long *vs.* Wittmer, etc., 225 O. G., 371.)

Section 4904.

INTERFERENCES.

Completion of Invention.

Conception.

A mere Desire for a Certain Result is not a conception of an invention. (Eshelman *vs.* Schanz, 189 O. G., 1282.)

Disclosure.

Sketches Shown Without Explanation constitute a disclosure if they can be readily understood. (Storck *vs.* Reichhelm, 227 O. G., 365.)

Reduction to Practice consists in the construction of the mechanism of a size capable of practical use, and a knowledge, perferably by actual trial, that it will work practically for the intended purpose. (Yuengst *vs.* Boyer, 63 O. G., 152.)

Test of a Device Apart From the System For Which it is Chiefly Useful is reduction to practice if the device is also designed for other systems. (Crevelin *vs.* Jepson, 226 O. G., 339.)

Construction Without Test is sufficient if the device

is simple and its efficacy obvious. (Mason *vs.* Hepburn, 84 O. G., 147.)

The Device Must be Capable of Performing its Intended Purpose. (Janin *vs.* Curtis, 231 O. G., 1539.)

Construction of a Hydroaeroplane That Will Not Rise from the Water is not reduction to practice. (Janin *vs.* Curtis, above.)

Instruments of Precision.

Unfailing Accuracy is required in the case of a voting machine. (McKenzie *vs.* Cummings, D. C. App., Vol. 24, page 137.)

Durability Tests are not necessary. (Mason *vs.* Hepburn, 84 O. G., 147.)

Drawings and Models do not constitute reduction to practice. (Mason *vs.* Hepburn.)

Constructive Reduction to Practice is secured by the filing of an allowable application. (Porter *vs.* Louden, 73 O. G., 1551.)

First to Reduce to Practice is Entitled to Priority. (Reed *vs.* Cutter, 1 Story, 590.)

Except When the First to Conceive is Diligent in Reducing to Practice. (Lorraine *vs.* Thurmond, 51 O. G., 1781; Eck *vs.* Katz, 132 F. R., 758.)

Degree of Diligence Required. An inventor is not required to devote his entire time to the preparation and filing of his application, or to abandon his ordinary means of livelihood, and he is not accountable for the usual delays of a busy patent attorney. (Courson *vs.* O'Connor, 224 O. G., 1057.)

Time taken to Investigate Commercial Advantages does not excuse delay after a rival enters the field. (Conrad *vs.* Krause and Marley, 233 O. G., 1107.)

Reduction to Practice Same Day as Opponent's Constructive Reduction entitles the first to conceive to priority. (Janin *vs.* Curtis, 231 O. G., 1360.)

When Both Parties File Applications on the Same Day Without Previous Reduction to Practice the first to conceive is entitled to priority. (McFarland *vs.* Hall, 231 O. G., 660.)

Conception Shown by an Amendment, Followed by Diligence entitles the party to the date of the amendment. (Young *vs.* Stimble, 231 O. G., 1551.)

Minority of an Inventor Not an Excuse for Delay. (Fuller *vs.* Jones, 115 O. G., 1066.)

Reasonable Delay After Reduction to Practice does not destroy the inventor's rights in the absence of concealment, suppression, or abandonment of the invention. (Oliver *vs.* Felbel, 100 O. G., 2384; Rolfe *vs.* Hoffman, 121 O. G., 1350.)

Res Adjudicata—Estoppel.

Broadened Claims Presented by Defeated Party in same or Another Application After Decision on Priority should be rejected unless a second interference is necessary to determine some question that could not have been determined in the first interference. (Blackford *vs.* Rusby, 204 O. G., 321.)

Second Interference Between Same Parties, Issues Differing Only in Scope should not be declared. (Corry and Baker *vs.* Trout *vs.* McDermott, C. D., 1904, page 144.)

Failure to Appeal From a Decision Dissolving an Interference on the ground that a party has no right to make the claims, is sufficient reason for rejection on the ground of *res adjudicata* if they are not canceled. (U. S. *ex rel.* Motor Co. *vs.* Moore, 133 O. G., 1080; *Ex parte* Kidder, 229 O. G., 269.)

Substitution of Broader Claims After Adverse Decision on Appeal from Decision Dissolving an Interference bars the claims that were canceled. (*Ex parte* Capen, 214 O. G., 683.)

Failure to Make a Claim Suggested by the Board of Examiners-in-Chief until After Final Judgment of Priority precludes making the claims. (Sutton, Steel and Steel *vs.* Wentworth, 201 O. G., 320.)

Presentation of Same Claims in Older Application After Dissolution of Interference for Failure to File an Affidavit Disclosing a British Patent is not barred on the ground of *res adjudicata*. (Rotter *vs.* Hodgkinson, 213 O. G., 110.)

Claims Which Might Have Been Made by the Defeated Party in an Older Application should be rejected if presented after judgment in an interference which was

declared on a narrower issue. (Rusby *vs.* Cross, 204 O. G., 319; *In re* Marconi, 38 App. D. C., 286.)

Failure to Appeal from a Decision in an Interference Holding that the Device of the Present Application was Inoperative made the question of operativeness *res adjudicata*, where the application in interference was a later application by the same party and the applicant had attempted to introduce the present application on a motion to shift the burden of proof. (*Ex parte* Kidder, 229 O. G., 269.)

Two-Party Interference with Prevailing Party by a Defeated Party to a Three-Party Interference is not permissible after the conclusion of the first interference because the question of priority is *res adjudicata*, where the issue of the later interference is readable upon the particular applications of the said two parties which were involved in the first interference. (Robinson *vs.* Copeland, 187 O. G., 514.)

Winning Party May Broaden his Claim After Interference if not inconsistent with the testimony or judgment. (Little, Jr., *vs.* Armstrong, 232 O. G., 935.)

Second Interference on Broadened Issue Permissible Where it Appears that the Conclusion in the First Interference would have been Different on a Broad Issue. (Same.)

Broad Claims which Remain in the Application of the Defeated Party Throughout an Interference should not afterwards be rejected where the interference is based on a narrow claim. (*Ex parte* Cutler, 232 O. G., 930.)

Parties Whose Rights Have Been Transferred to the Same Assignee are bound by judgments against any one of the parties apparently to the same extent as if they were a single party with several applications. (McKenzie *vs.* Garrett, 212 O. G., 1367.)

Issue by on Counts Not Patentably Different Awarded to Different Parties

In such a case the Examiner should refuse a patent to the party to whom the narrower counts were awarded. (Dewhurst *vs.* Ives, 224 O. G., 407.)

Section 4916.

REISSUES.

Inoperative or Invalid.

A Patent Need not be Wholly Inoperative or Invalid in order to justify a reissue. (Hobbs *vs.* Beach, 94 O. G., 2357.)

Diligence in Applying for a Reissue, Intention, and Intervening Rights are considered in this paper under the subject of "Broadened Claims," which in turn is considered under the head "Same Invention," because they are commonly so associated, but logically they should be treated under the heading "Inoperative or Invalid." If broadened claims are for the same invention a month after a patent is granted they are for the same invention fifteen years later, regardless of delay or intervening rights. The right to broadened claims is based on the inoperativeness of the patent to secure the inventors' rights, and when these rights are forfeited by reason of his conduct the original patent is no longer inoperative to secure all that belongs to him.

Defective or Insufficient Specification.

Changes Made in the Reissue Not Warranted Unless They Correspond to the Defects Alleged in the Application for Reissue. (Grand Rapids Show Case Co. *vs.* Baker, 208 O. G., 1355.)

Inadvertence, Accident or Mistake.

Intentional or Deliberate Omissions to claim matter in the original patent can not be corrected by reissue. (Grand Rapids Show Case Co. *vs.* Baker, 208 O. G., 1355.)

Second Reissue Including Claims of Original Patent which were Omitted from the First Reissue through Mistake as to the Prior Art, is valid in the absence of delay. (Autoplatform Co. *vs.* Am Plater Autoplat Co., 217 O. G., 1055.)

Failure of the Examiner to Suggest Claims for Interference is not such a mistake as is anticipated by the statute. (Jackson and Connett *vs.* Ladoux, 219 O. G., 929.)

Same Invention.

Broadened Claims do not necessarily cover a different invention. (Topliff *vs.* Topliff *et al.*, 59 O. G., 1257.)

Must Not Suppress Subsequent Improvements which do not conflict with the invention described in the original patent. (Gill *vs.* Wells, 6 O. G., 881.)

Omitting One Element of Original Claim and Adding Another may amount to claiming a different invention. (Gage *vs.* Kellogg, 26 F. R., 242; Miller *vs.* Brass Co., 104 U. S., 350.)

Diligence Required in Making Application for Reissue if Claims are Broadened. (Millery *vs.* Brass Co., above; Hubel *vs.* Dick, 28 F. R., 137.)

Same Right to a Broadened Claim also Affected by Evidence in the Original Patent and Elsewhere of the Patentee's Intention as to the Scope of his Claims. (Ide *vs.* Trorlicht, 115 F. R., 137.)

Delay Caused by Misstatement of Facts by Another is justified if diligence after the truth is discovered is shown. (*Ex parte* Hielt, 126 O. G., 1067.)

Belief by a Foreigner that the Law in Our Country is the Same as in His may also be taken into consideration as an excuse for delay. (*In re Herault.*, 127 O. G., 3217.)

Right to Make Narrower Claims May be Lost

Through Delay and Intervening Rights where a broad invalid claim has been permitted to remain unchanged for years. (Carpenter Straw Sewing Machine Co. *vs.* Earles, 52 F. R., 809; Hubel *vs.* Dick, 28 F. R., 132.)

Sub-Combinations not Claimed in the Original Patent may be claimed in a reissue subject to the same statutory and other restrictions as broadened claims. (Universal Caster & Foundry Co. *vs.* Schenck, 166 F. R., 344.)

Reinstating Claims of Original Patent in Second Reissue, After Omission from First Reissue, is permissible, subject to the usual restrictions as to delay, etc., but

Persons who have Acquired Intervening Rights by the manufacture and sale of devices that did not infringe the first reissue will not be held as infringers under the second reissue. (Autopiano Co. *vs.* Am. Player-Action Co., 217 O. G., 1055.)

Acquiescence in Rulings by the Examiner together with delay in applying for a reissue, estops the owner of a reissue patent from proceeding against one who has acquired intervening rights. (Franklin & Co. *vs.* Illinois Moulding Co., 128 F. R., 48.)

Practice When There is Evidence of Intervening Rights Before the Examiner. See Skinper *vs.* Carpenter, 166 O. G., 1281; Norling *vs.* Hayes, 166 O. G., 1282; and the patent files of Carpenter, Reissue No. 13361, and Hayes, Reissue No. 13410.

Patent for Apparatus Reissued With Claim for Process held unwarranted where the apparatus and process were clearly distinct inventions. (Heald *vs.* Rice, 21 O. G., 1443; James *vs.* Campbell, 21 O. G., 337.)

Patent for Process Reissued With Claims for Product has been held proper, particularly where the process produces a new substance as its product. (Merrill *vs.* Yeomans, 94 U. S., 568; James *vs.* Campbell, 21 O. G., 337.)

Section 4920.

Prior Patent or Publication.

Defendant Pleading Same as an Anticipating Patent or Publication Limited to its Date. (Bates *vs.* Coe, 98 U. S., page 31; Eck *vs.* Kutz, 132 F. R., 758.)

But not so Limited if Averment is Made of Earlier Invention and Use, or if Date of Application is Averred. (Barnes Automatic Sprinkler Co. *vs.* Walworth Mfg. Co., 60 F. R., 605; Diamond Drill and Machine Co. *vs.* Kelly Bros., 120 F. R., 282.)

Inoperative Patent for a Process which Clearly Discloses a Product is a valid reference as against a subsequent inventor of the product. (*In re* Decker, 162 O. G., 900.)

"NOT THE ORIGINAL AND FIRST INVENTOR."

Patent Not Claiming the Invention in Controversy, Granted After Applicant Filed his Application, but on an Application Filed First is evidence of the state of the art at the time the patentee applied for his patent, which determines whether the invention claimed by the later applicant is actually an invention or not. (Millett and Reed *vs.* Duell, Com'r., 96 O. G., 1241.)

Antedating Invention Must be Complete, Not Experimental; that is, made so as to be of practical utility. (Agawam *vs.* Jordan, 7 Wall., 583; Howe *vs.* Underwood, 1 Fish., 160.)

Trial of an Incomplete Structure, to ascertain what changes may be necessary, is experimental. (N. W. Fire Extinguisher Co. *vs.* Philadelphia Fire Extinguisher Co., 18 Fed. Cases, 394.)

Trial of a Complete Structure, to illustrate or test its practical efficiency, is not experimental, if the machine proves its capacity to effect what its inventor proposed. (Same.)

Application of Prevailing Party in an Interference Evidence of Priority, as Against the Losing Party and his Assignees. (Westinghouse *vs.* Chartiers Valley Gas Co., 43 F. R., 582.)

Patent Granted to a Plurality of Persons as Joint Inventors Void if the Invention was Made by a Sole Inventor. (Stewart *et al. vs.* Tenk, 41 O. G., 1502.)

Patent Granted to a Single Person as Sole Inventor is of Doubtful Validity if the Invention was Made by Joint Inventors. (Royer *vs.* Schultz Belting Co., 50 O. G., 557.)

Section 4923.

PRIOR KNOWLEDGE AND USE IN A FOREIGN COUNTRY.

Earlier U. S. Patent to a Foreigner Based on an Earlier Application Barred by U. S. Application made by an American, Before Foreigner's Patent was Granted. (Vacuum Engineering Co. *vs.* Dunn, 209 F. R., 219.)

It is impossible to reconcile this decision with Bissell

vs. Fottinger, 212 O. G., 689, where Fottinger filed an application in the German Patent Office, and after amending it was given the benefit of the date of his amendment as a constructive reduction to practice. Judging from the published decision, however, without having seen the record, it seems that in Vacuum Eng. Co. *vs.* Dunn, the defendant relied upon the provisions of Section 4923, while Bissell *vs.* Fottinger was considered in the light of Section 4887.

March 15, 1917.

The British Form of Patent Claims

A paper read March 22, 1917, before the Examining Corps of the United States Patent Office

BY

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The British Form of Patent Claims

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However different the patent laws and practice of various countries may be in their details they all agree in the basic principle, that as a condition precedent to the granting of the patent monopoly it is incumbent upon the applicant to disclose the subject-matter upon which the grant is based in such a manner that the public will be definitely apprised of the extent of the monopoly sought.

This uniformity follows from the fact that all patent laws may be traced to a common origin which is generally conceded to be the so-called Statute of Monopolies which was wrung from King James the First in the seventeenth century, and which was directed to the elimination of monopolies granted by the sovereign as marks of favor. This famous statute specifically excepted from among monopolies declared to be unjust and oppressive all letters patent and monopolies for the "sole working or making of any manner of new manufacture within the realm to the true and first inventor of such manufacture, which others at the time of making such letters patent and grants should not use, so they be not contrary to law nor mischievous to the State by raising of prices at home or hurt of trade or generally inconvenient." This one exception is the genesis of the present letters patent for invention and it is interesting to note that, as only monopolies directed to *new* manufactures were legal the grant or letters patent necessarily should in some manner define the manufacture, for the purpose of distinguishing such new manufacture from old or known manufactures.

In the early patents granted under the provisions of the Statute of Monopolies this office was performed by the

title, which formed the entire specification, claims and disclosure of the patent. When manufactures were in their infancy it was probably sufficient to distinguish a new manufacture from old manufactures by a mere title, but as manufactures developed, the title, which at the most was a single sentence, was found insufficient to answer the purpose and at the beginning of the eighteenth century a proviso was added obliging the inventor "by an instrument in writing under his hand and seal to describe and ascertain the nature of the said invention and in what manner the same is to be performed." In this proviso is found the origin of the specification and the claim, it being the office of the claim to ascertain the nature of the invention, and the office of the specification to ascertain in what manner the same is to be performed. Under a ruling of the Solicitor General in the reign of Queen Anne, this proviso was made effective and from that time a written description of the alleged new manufacture has been a condition precedent to the granting of a patent, although at first in such description no distinction was made between the specification and the claim. The written description referred to in its entirety as the specification served the purpose of both, and as a matter of fact in certain existing patent systems, the specification still performs this double duty.

Although the necessity of defining the extent of the monopoly was thus early recognized and required, no particular manner or form was specified or recommended for this purpose. It is interesting to note that the majority of present day patent laws are silent on this point as are also the bulk of court decisions, as the courts have almost universally held that no particular form of claim is necessary to comply with the provisions of the patent laws. However, one is impressed, in considering the claims of recent patents of all countries where claims are required, by the fact that one or the other of two forms of claims is almost universally employed and has become standard.

One of these forms known as the American form is so familiar to those to whom this paper is addressed as scarcely to require comment; the other form commonly known as the British form it is the purpose of this paper

to discuss. Therefore, in considering the development of the claim only its development in Great Britain will be followed.

Originally an inventor was assumed to claim as new and as his invention everything described in his specification, and the English courts as late as 1816 went so far as to hold that where the nature of the invention and the manner in which it is performed is ascertained by a written description and annexed drawings filed by the inventor that "whatever therefore is contained in the drawings annexed is claimed by him as his invention" (Gibbs, C. J., in Bovill *vs.* Moore; Common Pleas N. P., March 1, 1816). On this principle many patents were held to be void on the ground of fraud as claiming as new that which was old. Therefore to meet this condition and at the same time to ascertain the manner in which the invention was to be performed, which could not be done without referring to that which was old, inventors began to insert in the specification language intended to indicate that certain portions thereof utilized in ascertaining the manner in which the invention was to be performed were, as a matter of fact, not new. Thus the disclaimer originated and it is interesting to note that in point of time the disclaimer preceded the claim.

As the arts developed still further, pioneer inventions became less frequent and an increasing number of applications for patents were directed to improvements upon existing machines and processes. In order adequately to describe inventions of this character and to comply with the requirement that the invention should be described in such a manner that one skilled in the art could practice it, it was necessary to include more and more description of that which was not new, all of which had to be specifically disclaimed in order to save the resulting patent from attack on the ground of claiming as new that which was old. Under these conditions the disclaimer became unwieldy and formed a large part of the specification. Also as is evidenced from an inspection of early British patents, the specification writers as a matter of precaution, to cover a possible omission from the disclaimer of some detail, began to add to the disclaimer a modifying clause which has developed into

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

this conversion on the inventor, who at least should be in a better position to do it than any one else? This would materially lessen the burden of the Examiner and the public, as once the analysis is made, if the results of such analysis are indicated in the claim itself in the issued patent, subsequent analyses in future suits, infringement and validity searches are unnecessary.

It is strange that the chief objection urged against the British form of claim is directed against the very characteristic which is the great advantage of this form of claim. It is urged that the British form of claim is too definite and should not be used, as it does not give the expert in an infringement suit sufficient latitude in applying the claim to an infringing device. This objection is on a par with the objection to the use of any punctuation in a claim for the same reason. There seems to be a well defined feeling on the part of some patent attorneys that a claim should be vague in order to give to the inventor the fullest possible protection; that is, that the claim should be capable of several interpretations in order adequately to cover the invention. In other words, the objection amounts to this: an inventor should not be required to state his invention definitely because later it may develop that the inventor did not understand it himself and someone who subsequently finds out what the invention really is can make use of it without infringing the claim. The answer to this of course is that under the patent statutes, the inventor is entitled to a monopoly of only that which he contributes to the public when he applies for a patent, and he is not entitled to a monopoly upon something subsequently discovered by someone else. In return for the monopoly the inventor shall, in the language of section 4888 of the Revised Statutes, "particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery." If the claim is capable of several different interpretations, it is not distinct and the inventor has failed to comply with the requirements of the statute.

Aside from the very great advantage of definiteness of the British form of claim in construing the claim in litigation, this form of claim is such that it is intelligible to those other than experts, and hence it is the rule rather

than the exception for an inventor to be able to ascertain from the claims which his attorney has prepared in the British form, what is claimed as his invention. This is a very real advantage as it oftentimes happens that even the most capable attorneys mistake an invention and hence fail to draw the claims to the invention. The inventor can tell at a glance, if the claim is in the British form, from the characterized clause just what is the subject of the claim, whereas in claims of other forms the inventor is at a loss to distinguish between the essential and non-essential elements.

Furthermore in order to state the invention in the British form of claim the attorney must necessarily analyze the invention before drawing the claim. It is necessary for him to ascertain the novelty and the scope of the invention before he can state it in a characterized clause. The attorney can not merely briefly describe the device or process and trust to luck that in so doing he has somehow or other included in such brief description a statement of the invention. Surely it is no hardship on the inventor or his attorney to require of them a knowledge of what the invention is, before an application is filed for a patent.

If it is necessary for those who prepare the application and claim to arrive at a definite idea of the invention before the application is filed fewer cases will arise in patent suits where an inventor fails to obtain the protection to which he is entitled, because of the inclusion in his claim of an unessential element. In a claim where the novel elements are not distinguished from old elements, the claim draftsman is quite likely in his efforts to make the claim complete to include positively therein an element which is really unessential. In the British form of claim such element would be in the preamble and not in the characterized clause and hence from its position would indicate the intention of the draftsman of the claim.

Perhaps the greatest advantage of the British form of claim and also of the use of main claims and subclaims, is the immense amount of labor and trouble saved on the part of those who consult the claims, as well as on the part of those who draw them. On the part of the constructor of the claim, once the invention has been

definitely ascertained, the characterized clause may be constructed by merely stating in broad language the characteristic, or in other words, the novel feature of the device of the invention. Once this is done the preamble of the claim which merely states the relation of the characteristic feature to the device as a whole may be easily written in a straightforward manner without resorting to complicated schemes of expression and of punctuation. Other claims and subclaims may be drawn by merely stating the characteristic feature more specifically or stating subordinate novel features in characterized clauses, and utilizing the main claim in its entirety as a preamble. One disadvantage, however, of the subclaim is that care must be taken not to attempt to define in a subclaim anything which is not actually subordinate to the main claim. If the main claim in its entirety is not essential to the feature to be claimed in a subsequent claim, such subsequent claim should be an independent claim. Or if it is desired to phrase two claims defining the same invention by the use of different expressions independent claims are required. However, as practically all patents contain a large number of claims which are actually subordinate to others which are in a large measure repetitions of other claims the subclaim is useful in the same respect that any abbreviation is useful.

Unfortunately in certain countries which have adopted certain features of the British form of claim, only a single main claim is permitted, so that the impression seems to be general that the British form of claim necessarily implies a single main claim. It is only necessary to refer to a score or so of British patents to remove this impression. It is quite common not only to find more than a single main claim, but to find several main claims each accompanied by a group of subclaims or several main claims and no subclaims at all.

Once the claim is drawn in the British form and filed in the Patent Office the work of the Examiner is much lessened. The analyzing process is eliminated as the analysis has already been made and the results thereof permanently recorded in the claim. Furthermore it is obviously less effort to keep in mind the alleged novel

features in making the usual search. The characterized clauses of the various claims will be found to bear a surprising resemblance to those lists of "things to look for" often prepared by searchers before beginning a search and it is of considerable advantage to the Examiner or attorney who undertakes a search to have this list ready made without considering the greater advantage (if the search is an infringement search) of eliminating the laborious analysis of every claim of every patent of the class searched. Just as the British form of claim simplifies the infringement search so would it also simplify the novelty and interference search of the Examiner and it would do much to insure the declaration of interferences in the Patent Office while the applications are pending rather than the declaration of the interferences after one of the applications has become a patent, which so often occurs under present conditions, simply because the examining corps is so overburdened with work that it is an impossibility for the Examiner to spend the necessary time to analyze a multitude of claims in a large number of applications. It is obvious that the subclaim also simplifies both the infringement and interference search as it brings about a grouping of claims directed to the same feature and consideration of the subclaims separately is avoided if a consideration of the main claims upon which they depend, proves the main claim to be of no interest.

However, the mere saving of labor and the consequent convenience which would follow from the adoption of the British form of claim into the United States Practice, is without avail if such adoption is contrary to the letter or spirit of either our Statutes, Patent Office rules or judge-made law, so that it is most important to consider this point.

The only place in our Patent Laws where the requisites of the claim are specifically mentioned is Section 4888 of the Revised Statutes which provides that the applicant "shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery." Hence the only statutory requirement is that the claim shall be a distinct statement of the invention or, in other words, that it shall be definite. As the British form of claim exceeds the American form in definiteness and distinctness, which

form of claim has been construed to meet the statutory requirement, obviously this requirement is met equally well, if not better, by the British form. Nor are the Patent Office Rules of Practice more specific than the statute with reference to the form of claim. Rule 37, which is the only rule on this point, merely states that "the specification must conclude with a specific and distinct claim or claims of the part or improvement which the applicant regards as his invention or discovery."

A search through the more common digests of Patent Decisions fails to disclose any court decision in point, as the courts have apparently been content to construe and criticize the claims before them regardless of their form and to leave the form of the claim to the Patent Office. It is true that many claims have been held invalid for want of definiteness but the courts have not attempted specifically to recommend or suggest any particular form in which the claim should be constructed. Therefore, it is in the Patent Office decisions that we may expect to find the form of the claim discussed. One of the first Patent Office decisions setting forth the requisites of the claims is *In re* Continental Windmill Co., Com. Dec. (1870), 74, in which the Commissioner states:

"The ideal claim is one which admits of but a single interpretation and that of the most literal character. The closer the Commissioner approximates to this standard, in the exercise of his discretionary power in the revision of claims, the more nearly will one prolific source of misunderstanding and controversy be avoided." The British form of claim is certainly a close approximation to the Commissioner's ideal claim.

The only decision found in which objection was raised to the British form of claim is *Ex parte* Sexton, C. D., 1873, p. 66, and this decision is directed not to the form of the individual claims but to the use of main and subclaims.

This decision which apparently established the doctrine that "each claim should be drawn complete in itself" has been modified in a recent decision of Assistant Commissioner Clay (*Ex parte* Brown, 235 O. G., 1355), in which it is held that a subclaim "comprising a reference to a preceding claim with a statement of the structural features distinguishing it therefrom," meets

with the requirements of the law. This decision contains a carefully considered and exhaustive discussion of the applicability of the subclaim in the United States practice and while the use of the subclaim is not specifically recommended the door is opened for those who desire to use it.

In this decision the Assistant Commissioner also indicates an advantage of the British form of claim which has not been specifically considered above. He emphasizes the requirement that an applicant is bound to distinguish between the several inventions claimed in his patent. In accordance with this requirement it is necessary that each claim in addition to distinguishing the invention therein stated from the prior art should distinguish it from the inventions stated in each of the other claims of the patent. It is upon this requirement that the common rejection of a claim as failing to patentably distinguish from another claim is based. It is hardly necessary to point out that the real test as to whether two claims patentably differ is whether or not the novel elements of the two claims under comparison are the same. In claims of the British form the comparison is easy as it is only necessary to compare the two characterized clauses, and of course if one claim is dependent on the other it is only necessary to consider whether the elements stated in the characterized clause of the subclaim are sufficient to distinguish the subclaim from the prior art as the distinction between the main and subclaims is apparent on the face of the subclaim.

There being no apparent reason, such as a statutory enactment or a judicial decision, why claims in the British form have not been employed in United States patents, the real reason for the now exclusive use of the American form of claim in the United States patents forms an interesting subject for speculation. In both Great Britain and the United States claims were inserted in patents long before claims were made a necessary part of the specification by statutory enactment, for this statutory enactment is first found in the act of 1836 in the United States and not until 1883 in Great Britain. As both the British and United States patent statutes are silent as to the form of the claim, it is not at once

apparent why claims in the British form have been extensively used in Great Britain and not in the United States. For many years both the British and the United States Patent Offices have issued publications for the information of applicants and attorneys such as the British "Instructions for Applicants," and the United States "Rules of Practice." There is one important difference however between these two publications. The British "Instructions to Applicants" does not include a specimen specification and claim, whereas the United States "Rules of Practice," at least as far back as the issue of 1849, does include a specimen specification and claim. Therefore, the United States Patent Office by the publication of such specimen claim, has officially approved a certain form of claim, which form it is hardly necessary to state is the American form. Furthermore, the Office has specifically given this approval to the form of claim published in the "Rules of Practice" in a Commissioner's decision in *Ex parte* Skinner (1881, C. D., 12, 19 O. G., 662), in which it is stated "the form of claims given in the 'Rules of Practice' should not be changed unless absolutely necessary." In view of this specific approval, it is not strange that the form of claims given in the "Rules of Practice" should have been exclusively followed in preparing claims for United States applications, and it is thought that it is in this express approval on the part of the Patent Office that the real reason is to be found for the non-existence of claims in the British form in United States patents.

In conclusion, it is submitted that the British form of claim possesses sufficient merit to warrant its adoption in the United States patent practice. There is nothing in the United States Patent Law or the decisions of the Patent Office which forbids such adoption. It is hard to see upon what grounds the Patent Office could object to claims in the British form if presented in an application. Furthermore, the British form of claim is not a mere experiment, but it has been tried out and adopted under patent laws which are fundamentally similar to those of the United States and upon which the United States law is based. Furthermore, this form of

claim has been adopted by countries which have either comparatively recently revised their existing patent system or have inaugurated new systems, of which Holland and Japan are the most recent examples, and this form of claim has been adopted by these countries after a detailed study of existing forms of patent claims, including the American form.

It is thought that it has been sufficiently demonstrated that a claim in the American form when analyzed to determine its scope and substance, becomes in fact a claim in the British form, so that perhaps the best argument in the favor of the adoption of the British form of claim in United States patents is that the burden of the analysis should be placed where it belongs; namely, on the applicant. Therefore, it is to be hoped that some ardent reformer will have the courage to take a step forward in claim evolution and present claims in the British form in an application for a United States patent and thus leave it to the Patent Office to decide whether this convenient form of claim may be utilized by those who so desire in applications for United States patents.

March 22, 1917.

ADDRESS OF HONORABLE THOMAS EWING, COMMISSIONER OF PATENTS, AT THE ANNUAL BANQUET OF THE AMERICAN PATENT LAW ASSOCIATION, WASHINGTON, FEBRUARY 28, 1916.

There is now being erected on the corner of Eighteenth and F Streets a building for the relief of the Patent Office. I trust that the Secretary will leave our building before March 4th next and take the Land Office with him, because Secretary Lane will give us not only the whole of the Patent Office but a goodly part of the Land Office, into which some of our clerical force and all of the fifty million patent copies can be transferred without disturbing the orderly conduct of business. When I was in the Patent Office twenty-five years ago a considerable part was occupied by the Land Office. We were then as much crowded in the space allotted to us as we are now. It has taken the lifetime of a generation to win a little much-needed breathing space. Evidently things move pretty slowly. Take the matter of appropriations. Apart from the mechanical cost of producing the patents and the Official Gazette we have for all salaries about one million, three hundred and seventeen thousand dollars. This amounts to about nineteen dollars and a half for every application for patent that is filed and must cover the entire activities of the Office—clerical work, classification, examination and review, interferences, and everything else. After long effort we have succeeded in exchanging a few third and fourth assistants for some first and second assistants with the result that next year, if the number of applications is not increased, the aggregate appropriation for salaries will be about twenty dollars and fifty cents per application. In 1890 it was seventeen dollars, in 1895 eighteen dollars, in 1900 nineteen dollars. It slipped

back in 1905 to sixteen dollars and came up again in 1910 to nineteen dollars and a half, where it is today. At the best it is very small.

What I wish particularly to call attention to, however, is the permanency of conditions. In a general sense the same sort of thing is true of the examining corps. The primary examiners have been in the Office an average of twenty-seven and a half years; the first assistants almost twenty-two years. These two grades constitute nearly thirty per cent of the force. When I was sworn in, the dean of the corps, who had been serving for half a century, told me that I was his twenty-first Commissioner.

I think you will have to agree with me that in the Patent Office the condition is one of stable equilibrium. And as to the Patent Statute, the difficulties of amending it are so great as to be practically prohibitive, at any rate within the lifetime of a Commissioner.

To count on Congress for large improvement in conditions seems to me, in the light of experience, to be mere folly. What improvement is to be effected must come from better use of the facilities at our command. In every effort along this line of endeavor you gentlemen and your clients, who present to the Office the bulk of its important business, are more interested than any one else. You have enormous influence and opportunity for greater influence. With this influence, actual and potential, there is associated a correspondingly heavy duty. It is this duty, resting upon you, to which I wish mainly to direct your attention in the few minutes which I shall occupy in addressing you tonight.

The two great functions of the Office are to refuse patents which should not be granted and to grant patents which should be granted. It does not succeed very well along either line of its duty. Take first the prevention of improper grants. Thirteen or fourteen applications are allowed in every working hour of the year, and a

patent is granted for about every six minutes that the Office is open. If this meeting were being held during office hours I should be nervous for fear while I was addressing you some application be sent on its way to patent which should be rejected. The examining corps of less than four hundred men are expected to be able to apply the entire body of human knowledge of industrial arts to original and supposedly novel proposals, submitted at the rate of more than two hundred for every day in the year that the Office is open. The task is impossible of performance. But many defects of performance can be mitigated. One very important step is to relieve the Office from all work which costs more time than its importance warrants; as, for example, work which requires attention to many cases lest here and there one slip through which should be withheld. Counsel of perfection is wasted in dealing with a problem of the magnitude and difficulty of that with which the Office deals. What is needed is sane administration aiming to get the best attainable results.

Referring now to how the Office performs the duty of granting proper patents, many inventors find themselves prevented for years from receiving patents to which they are justly entitled. I am inclined to think that the failure of the Office in this respect brings more reproach upon it than does the granting of improper patents. If you wish to know how the matter strikes the plain man, read in the Reprinted Pieces of Dickens his sketch entitled "A Poor Man's Tale of a Patent." Every solicitor and examiner should read it at least once a year. There are two brief passages which I shall read:

> "It won't be took as boastful in me if I make the remark (for I can't put down what I have got to say, without putting that down before going any further), that I have always been of an ingenious turn. I once got twenty pound bay

screw, and it's in use now. I have been twenty year, off and on, completing an invention and perfecting it. I perfected of it last Christmas Eve at ten o'clock at night. Me and my wife stood and let some tears fall over the Model, when it was done and I brought her in to take a look at it.

. . . . . .

"Thereby I say nothing of my being tired of my life, while I was patenting my invention. But I put this: Is it reasonable to make a man feel as if, in inventing an ingenious improvement meant to do good, he had done something wrong? How else can a man feel, when he is met by such difficulties at every turn? All inventors taking out a Patent must feel so. And look at the expense. How hard on me, and how hard on the country if there's any merit in me (and my invention is took up now, I am thankful to say, and doing well), to put me to all that expense before I can move a finger! Make the addition yourself, and it'll come to ninety-six pound, seven, and eightpence. No more, and no less.

"What can I say against William Butcher about places? Look at the Home Secretary, the Attorney-General, the Patent Office, the Engrossing Clerk, the Lord Chancellor, the Privy Seal, the Clerk of the Patents, the Lord Chancellor's Purse-bearer, the Clerk of the Hanaper, the Deputy Clerk of the Hanaper, the Deputy Sealer, and the Deputy Chaff-wax. No man in England could get a Patent for an india-rubber band, or an iron hoop, without feeling all of them. Some of them over and over again. I went through thirty-five stages. I began with the Queen upon the Throne. I ended with the Deputy Chaff-wax. Note. I should like to see the Deputy Chaff-wax. Is it a man, or what is it?

"What I had to tell, I have told. I have wrote it down. I hope it's plain. Not so much in the handwriting (though nothing to boast of there), as in the sense of it. I will now conclude with

Thomas Joy. Thomas said to me, when we parted, 'John, if the laws of this country were as honest as they ought to be, you would have come to London—registered an exact description and drawing of your invention, paid half a crown or so for doing it—and therein and thereby have got your Patent.'

"My opinion is the same as Thomas Joy. Further. In William Butcher's delivering 'that the whole gang of Hanapers and Chaff-waxes must be done away with, and that England has been chaffed and waxed sufficient,' I agree."

You and I know the difficulties in making smooth the path of the inventor. But the fact remains that many of them are unnecessary. If you will think seriously about it you will have to admit that some of them are of your making. Substantially all of the business reaches the Office through attorneys. I think that every attorney before being admitted to the practice, should be required to serve as Commissioner for at least six months. But since this is not practicable let me give you this general suggestion by way of warning. Don't teach the Office bad tricks; don't do sloppy work; don't make dilatory actions; don't try to stop some one else who is entitled to it from getting his patent. In a word, don't do all the things you complain of when the Office does them.

The Office has a huge task to perform. You should aid in the performance of it not only in your own cases but in all others. If the Office were properly run a man who has rights would get his patent promptly. We should not give it to him after it has lost much or all of its value, nor give it to his heirs after he is dead. Give him what he wants when he wants it. If we could do this the Office would make friends at the rate of forty thousand a year. If the people who do business with the Office felt that it was not being used for oppression but was

being run on business lines, they could and would bring pressure which would induce Congress to give us what we need.

Now, I have said all the unpleasant things I have to say. There are some pleasant things which ought to be said. The Office was founded according to the present plan just eighty years ago. It has traditions, some of them very worthy of its great function. Two characteristics I wish especially to mention. The Office is honest to the core. When you consider the vast value of the secrets which are confided to its keeping it is fairly astonishing that it is free from the suspicion of evil. This, I believe we owe in large measure to the civil service rules which were first put into effect during General Grant's administration, by that great Commissioner, Samuel S. Fisher. As the result of his wise action the standard has been set so high that the whole examining corps is made up of professional men with the stability of character and high ideals which the study of any great profession helps to develop. No one can find in the history of the Office any basis for objection to trusting its integrity in any way that the disposition of its business demands.

The men almost always enter the Office quite young. After being out of school for some years one finds it difficult to pass examinations. The President, in his speech at the Gridiron Club banquet, on Saturday last, said that you can not define a straight line by two points but must have three. If to pass an examination in geometry were a prerequisite he might have been excluded from his great office. The examining corps is made up of men who are young, or who entered young and have grown old in the service. There is in the corps a certain inexperience in practical affairs which is one of its traditional characteristics. But the attitude of the Office toward the inventor is a right attitude. The patent is a reward and an incentive. It should be given by the

public cheerfully. The idea that it represents something taken from the public domain for private benefit has never been prevalent in the Office. Over-technicality, dilatoriness, and all of its other faults arise out of inexperience or habit. But every man in the corps wishes a real inventor good luck in full measure. This favorable disposition is the best asset which you attorneys and your clients possess, excepting a good invention. Don't discourage it. Help the Office to do its gigantic work as it should be done. In the end you will find that you are helping yourselves, and the public weal.

BEARING OF THE CONTRACT THEORY OF PATENTS ON CERTAIN DEFENSES

DELIVERED BY THE

COMMISSIONER OF PATENTS

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BEARING OF THE CONTRACT THEORY OF PATENTS ON CERTAIN DEFENSES.

Toward the close of 1601 the numerous patents relating to commerce and manufacture which Queen Elizabeth had granted were subjected to vigorous attack in Parliament. Raleigh, Cecil and Bacon defended the royal prerogative and the patents granted by virtue thereof. The Queen finding that they were unable to stem the tide of opposition, by proclamation dated November 28, "of her mere grace and favor to all her loving subjects, and by her regal power and authority" declared void a number of these grants and as to those still left in force decreed "that all and every her Highness' loving subjects, that at any time hereafter shall find themselves grieved, injured or wronged by reason of any of the said grants, or any clause, article or sentence therein contained, may be at his or their liberty to take their ordinary remedy by her Highness' laws of this realm, any matter or thing in any of the said grants to the contrary notwithstanding."

While thus graciously permitting these matters to be tried in the Queen's bench she reaffirmed her right to make such grants, saying: "And as her Majesty doth greatly commend the duty and obedience that her loving subjects have yielded in conforming themselves to the said grants, being under the great seal of England: So her Majesty doth notify and signify by these presents that if any of her subjects shall seditiously or contemptuously presume to call in question the power or validity of her prerogative royal, annexed to her imperial crown, in such cases all such persons so offending shall receive severe punishment, according to their demerits."

Following her proclamation, on November 30, 1601, she delivered what proved to be her valedictory known as the Golden Speech of Queen Elizabeth to her last Parliament. It throws so much light on the very beginning of the patent system that I shall quote some passages of it:*

"Since I was Queen," she says, "yet did I never put my pen to any grant but upon pretext and semblance made me that it was for the good and avail of my subjects generally, though a private profit to some of my ancient servants, who have deserved well; but that my grants shall be made grievances to my people, and oppressions to be privileged under color of our patents, our princely dignity shall not suffer it.

"In my governing of this land, I have ever set the last judgment day before mine eyes, and so to rule as I shall be judged and answer before a higher Judge, to whose judgment seat I do appeal; in that never thought was cherished in my heart that tended not to my people's good.

"And if my princely bounty have been abused, and my grants turned to the hurt of my people contrary to my will and meaning, or if any in authority under me have neglected, or converted what I have committed unto them, I hope God will not lay their culps to my charge.

"To be a King and wear a crown is a thing more glorious to them that see it than it's pleasant to them that bear it: * * * * The cares and troubles of a crown I cannot more fitly resemble than to the drugs of a learned physician, perfumed with some aromatic savor. * * * * For my own part, were it not for conscience sake to discharge the duty that God hath laid upon me, and to maintain His glory and keep you in safety, in mine own disposition I should be willing to resign the place I hold to any other, and glad to be freed of the glory with the labors, for it is not my desire to live nor to reign longer than my life and reign shall be for your good. And though you have had and may have many mightier and wiser princes sitting in this seat, yet you never had nor shall have any that will love you better.

"Thus, Mr. Speaker, I commend me to your royal loves, and yours to my best care and your further counsels,

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*The History of the English Patent Law is derived mainly from "The English Patents of Monopoly", by William Hyde Price, Harvard University Press, 1913.

and I pray you, Mr. Controller and Mr. Secretary, and you of my Council, that before these gentlemen depart to their countries, you bring them all to kiss my hand."

Patents began to be granted by the King as early as the reign of Edward III, distinguished as it was by great intellectual and industrial development. A grant by Edward to John Perchy of the sole right to import wines into London was adjudged void by Parliament. On the other hand a charter granted by Henry VIII to the physicians of London was confirmed by Parliament. The statute of monopolies of 1624 expressly excepted all grants allowed or confirmed by Act of Parliament from its declaration of invalidity.

The Conflict Over the Royal Prerogative.

These facts are evidence of a great controversy between the Crown on the one hand attempting to assert its prerogative, and Parliament and the common law judges seeking to annul the patents.

Subjects were warned by the Crown against infringement "upon pain of imprisonment of their bodies and forfeitures of all and every the said materials, instruments and things aforesaid, which shall be wrought, framed and made by any person or persons contrary to the tenor of these presents and royal prohibition therein." The exercise of the prerogative was not limited to encouraging inventors. It was a sort of protective system, "by the cherishing of manufactures of all sorts among the people whereby great numbers of them are set on work and maintained and much treasure thereby saved kept within the Kingdom, which was unthriftily otherwise spent in the maintenance of manufactures abroad whereby strangers in foreign parts have received employment" (Mansell Patent Extension, 1634). It was made use of to preserve the forests. For example, the patent to Mansell on the making of glass with the use of coal as fuel

which shows the beginning of coking, was accompanied with prohibitions against using wood as fuel.

Among the many points of contention between the Crown on the one side and Parliament and courts of law on the other, was the enforcement of grants by the aid of the privy council. As has already been made to appear, Queen Elizabeth was forced to grant leave to try all of her patents in the Queen's bench that they might be subjected to the test of the common law. In the case of *Darcy* v. *Allein* it was expressly held that no man could be restrained from exercising any trade but by Parliament. Following this case James I in 1603 proclaimed that all grants and charters of monopoly together with all licenses to dispense with penal laws, excepting grants to corporations and companies of arts and mysteries and for enlargement of trade were to be suspended until examination could be had by the King with advice of his Council. And in 1610 James proclaimed that all grants of monopolies were contrary to the ancient and fundamental law of the realm and by proclamation subjected many patents to trial at common law.

The Statute of Monopolies.

Following this was the celebrated Statute of Monopolies passed in the twenty-first year of his reign, March 24, 1624.

This statute contained the following exception: "Provided nevertheless, and be it declared and enacted that any declaration before mentioned shall not extend to any letters patents, and grants of privilege, for the term of one and twenty years or under, heretofore made of the sole working or making of any manner of new manufacture within this realm, to the first and true inventor or inventors of such manufactures which others at the time of making of such letters patents and grants did not use, so they be not contrary to the law nor mischievous to the state, by raising of the prices of commodities at home, or hurt of trade, or generally inconvenient, but that the same shall be of such force as they were or should

be if this act had not been made, and of none other: and if the same were made for more than one and twenty years, that then the same for the term of one and twenty years only, to be accounted from the date of the first letters patents and grants thereof made, shall be of such force as they were or should have been if the same had been made but for the term of one and twenty years only, and as if this act had never been had or made, and of none other."

The exception contained in this statute, out of which the entire modern law of patents of England grew, was undoubtedly based in part upon a certain sense of fairness. As is said in a petition for a patent in England in 1559: "Nothing is more honest than that those who by searching have found out things useful to the public, should have some fruit of their rights and labors, as meanwhile they abandon all other modes of gain, are at much expense in experiments, and often sustain much loss."

Counsel for the infringer in the case of *Darcy* v. *Allein* admitted the following exception to the rule of the common law against monopolies:

"When any man by his own charge and industry or by his own wit or invention, doth bring any new trade into the realm or any engine tending to the furtherance of a trade that never was used before; and that for the good of the realm;—that in such cases the King may grant to him a monopoly-patent for some reasonable time, until the subjects may learn the same, in consideration of the good that he doth bring by his invention to the commonwealth, otherwise not."

Partly for this reason out of the general destruction of monopolies attempted by the Act of 1624 a portion of the royal prerogative was saved. Nor did this statute put an end to all monopolies other than those upon inventions granted to inventors. Upon the succession of Charles I, a long-continued and vigorous effort was made to preserve the royal prerogative in this respect, mainly in aid of designs on the part of the King to build up a system of internal revenue taxation, which should give him an income independently of

grants by Parliament. It is true that he was at last forced largely to annul his grants, decreeing among other things that all patents not put into use within three years should be recalled. But these concessions came just before the assembling of the long Parliament. The controversy which led to his decapitation is intimately connected with the agitation over the exercise of his prerogative.

After the establishment of the Commonwealth, certain monopolies were maintained because it had developed that they furnished an easy method of collecting taxes. The most notable was the monopoly of soap. The system of grants irrespective of novelty faded out of the English law only with the development of more rational and equitable methods of taxation.

During the whole course of this agitation against monopolies, it will be seen, the question of the right to grant patents for inventions was confused with a number of other questions contributing to the establishment of the monopolies. These questions were, the right of the Crown to prohibit citizens from entering into certain lines of business and to grant leave to certain citizens to enter into certain lines of business; to prohibit the exportation of certain classes of raw material or goods, commonly called embargo; to prohibit the importation of certain classes of raw material or goods, or to impose a tax thereon in the nature of a tariff protection; the granting of charters to corporations; the regulation and control of mining operations; the conservation of the forests; and the like.

Patents as Contracts.

In the course of this development certain principles were established which are still important. One bears on the subject under discussion, viz.:

The grant was a contract between the Crown and the patentee, his heirs and assigns. Some of the old patents

were in the form of indentures and the Crown was at times a partner. James I invested one hundred thousand pounds sterling in the Royal alum works, operating under a patent. This illustrated how completely they were matters of royal prerogative. Yet out of this idea of contract between Crown and patentee undoubtedly developed the modern conception that a patent is a contract. Originally the consideration need not be but frequently was some discovery, invention or new importation. Originally also disclosure of the new thing was not required as a condition of the patent. But slowly out of the great confusion of ideas was evolved the conception of a transaction in the nature of a contract according to which a grant is made in consideration of and coextensive with an immediate disclosure of something which is new and useful to the public. As Lord Eldon stated it in *Cartwright* v. *Eamer*, patents were to be "considered as bargains between the inventors and the public, to be judged of on the principle of keeping good faith by making a fair disclosure of the invention."

It was a logical step from this that anyone having an invention to communicate might obtain a grant; and thus the King's prerogative disappears as an influence in the patent system. As I have already hinted, it played, I believe, a far more important part than it is given credit for in the development of the system. The critical view of patents which the courts of England took for more than a century after the passage of the Statute of Monopolies in 1624, tends to show that the exception therein in favor of new inventions and importations was not especially a popular effort to develop industries and encourage invention. The exception is, rather, evidence of the King's influence, who was able to save from the general prohibition of monopolies so much of the royal prerogative.

With the disappearance of the royal prerogative there disappeared also another conception, viz., that the right to use

an invention arose out of the grant. The old patents contained two separate clauses, one specifically granting the right to make use of the invention and the other prohibiting any one else from doing so. It was customary for the Kings to grant licenses to trade. Many were granted by Henry III. One dated in 1248 granted "power to Jordan de Bruneswik to conduct from beyond seas to England ministers cunning in any kind of minting and exchange of silver to do in the realm what pertains to the business of each and to receive their wages." When, however, it became established that freedom of trade is the birthright of every subject and monopolies were strictly limited to new manfactures, the grant carried with it no right of use and no restriction of established trade but merely the right to exclude others from enjoyment of the new thing. The words of the granting clause of our patents "the exclusive right to make, use and vend the said invention" which is recited in Section 4884 of the Revised Statutes, is an heritage of the old idea that the grant conferred the right to use as well as the right to exclude others from using.

Patents began to be granted in the American Colonies about the time of the protectorate. One is recorded in the General Court in Boston as early as 1641. Just after the Revolutionary War some states granted patents. The patent Act of 1793 made special provision for their surrender upon the granting of federal patents. James Rumsey of Maryland was granted the exclusive right by Maryland and Virginia "of navigating their rivers with his newly invented steamboat." The developments of Fulton led to similar rights being granted by a number of the States, notably New York and New Jersey, all of which were held void by the Supreme Court of the United States in the case of *Gibbons* v. *Ogden,* reported in 9 Wheaton. These matters need not detain us, because the Constitution of the United States in its practical effect put the entire matter into the control of the Federal Legislature. Article 1, Section 8, reads as follows:

"The Congress shall have power * * * * to promote the progress of Science and Useful Arts, by securing for limited Terms to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."

Under this provision Congress, if it undertakes to provide a patent system, must enact one which is primarily directed to rewarding inventors and the only reward is to secure to them exclusive rights for limited periods. A system which is not characterized by these features is *de hors* the Constitution.

Acting under this authority Congress has passed four acts which have in turn been the basis of our entire patent system; the Acts of 1790, 1793, 1836 and 1870. The Act of 1870 became the basis of the present provisions of the Revised Statutes controlling patents.

It is desirable to bring out one point in which these fundamental patent acts all agree with each other.

The Act of 1790 contained the clause "if it shall appear that the patentee was not the first and true inventor or discoverer, judgment shall be rendered," etc. The phrase "not originally discovered by the patentee," equivalent as there used to "first inventor," is in the Act of 1793. The Act of 1836 lacked these expressions, but contained among the defenses "that the patentee was not the original and first inventor or discoverer of the thing patented." In another section it was provided that if when the patentee made application he believed himself to be the first inventor, his patent should not be held void because the invention was previously known or used in a foreign country provided it had not been described in a publication. This is substantially the condition of the present statutes.

It will thus be seen that from the very start the Constitution and the Acts passed to carry its provisions into effect excluded from consideration anything equivalent to the British conception of right derived from importation. While sub-

sequent to 1836 one might obtain a patent for something which was known abroad, he must not have known of it when he filed his application and it must not have been described in a printed publication. The British idea had been evolved at a time when anyone who went down to the sea in ships was in danger from the violence of enemies and when the King's prerogative was wide respecting all dealings with foreign parts. I believe that the necessity for excluding all rights arising out of importation (which was still a feature of the British system) was the reason for the use of "first inventor," "originally invented" and similar expressions in our statutes. I shall have occasion to recur to this point later on.

Definition.

Having thus briefly reviewed the history in certain of its features of the patent systems of Great Britain and this country, I shall venture the following definition of a patent for an invention under the laws of the United States:

A patent for an invention is a contract between a party claiming to be the inventor thereof and the Government, made in consideration of a disclosure of the invention by the claimant in his application, and proceedings taken as required by statute, and evidenced by letters patent conveying a grant by the Government to the inventor and his assigns, for a limited period, of the right to exclude all others from making, using, and selling the invention patented.

In popular language, of course, the word patent means the original document, or a printed copy of the illustrations and description attached thereto, or the invention itself, or some particular physical embodiment of it. I shall myself have to use the word in one of its popular meanings for mere convenience. But my definition is directed to the mutual legal rights of the parties evidenced by the original document

constituting the letters patent. Just as every written memorandum of agreement is merely an indenture witnessing the agreement, so the letters patent are only evidence of a contract.

In the course of this discussion I attach so much importance to the contract theory of patents that I wish to call your attention not merely to the discussions of the theory found in the text books as, for example, in Walker, Section 152, or Robinson, Section 40, but chiefly to the very interesting case of *Grant* v. *Raymond*, 6 Peters, 218. In this case the Supreme Court, speaking through Chief Justice Marshall recognized the right of reissue in the absence of statutory provision therefor, basing its conclusion on the fact that the patent is a contract. I quote the following passage from Brodix's American and English Patent Cases, Vol. 4, pages 271-272:

"To promote the progress of useful arts, is the interest and policy of every enlightened government. It entered into the views of the framers of our Constitution, and the power 'to promote the progress of science and useful arts, by securing for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries,' is among those expressly given to Congress. This subject was among the first which followed the organization of our Government. It was taken up by the first Congress at its second session, and an act was passed authorizing a patent to be issued to the inventor of any useful art, etc., on his petition, 'granting to such petitioner, his heirs, administrators, or assigns, for any term not exceeding fourteen years, the sole and exclusive right and liberty of making, using and vending to others to be used the said invention or discovery.' The law further declares that the patent 'shall be good and available to the grantee or grantees, by force of this act, to all and every intent and purpose herein contained.' The amendatory act, of 1793, contains the same language, and it cannot be doubted that the settled purpose of the United States has ever been, and continues to be, to confer on the authors of useful inventions an exclusive right in their inventions for the time mentioned in their patent. It is the reward stipulated for

the advantages derived by the public for the exertions of the individual, and is intended as a stimulus to those exertions. The laws which are passed to give effect to this purpose ought, we think, to be construed in the spirit in which they have been made, and to execute the contract fairly on the part of the United States, where the full benefit has been actually received,—if this can be done without transcending the intention of the statute, or countenancing acts which are fraudulent or may prove mischievous. The public yields nothing which it has not agreed to yield—it receives all which it has contracted to receive. The full benefit of the discovery, after its enjoyment by the discoverer for fourteen years, is preserved; and for his exclusive enjoyment of it during that time the public faith is pledged. That sense of justice and of right which all feel, pleads strongly against depriving the inventor of the compensation thus solemnly promised, because he has committed an inadvertent or innocent mistake."

See also:

Century Electric Co. v. *Westinghouse Electric Co.*, 191 F. R., 350;

Nat'l Tube Co. v. *Cyrus Mark*, C. C. A., 6th Cir., decided July 25, 1914.

In the making of these contracts the Government is represented by the Patent Office. With whom may the Patent Office enter into such contracts? That is to say, to whom may it make grants?

The section of the Revised Statutes which directly answers this question is § 4886. There are two sections numbered 4886, the one applicable to patents granted or to be granted on applications filed prior to January 1, 1898, the other applicable to all patents granted or to be granted upon applications filed since that date. The difference between these two sections does not concern us. The section as contained in the Act of March 3, 1897, reads 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 proceeding had, obtain a patent therefor."

I shall now discuss in a general way the rights which the Patent Office must guard while making the grants authorized by this section of the Revised Statutes.

The Rights of the Contracting Parties.

There are three classes of rights of this character, viz.:

1. The rights of the Government.
2. The rights of the general public.
3. The rights of rival inventors, involving interferences.

1. Under the rights of the Government may be mentioned the right to the fees, the right of the Office to enforce its rules, to protect itself against unreasonable inconvenience, against fraud attempted to be practiced upon it and the like. These are fairly obvious, but should be clearly distinguished from the other two classes of rights.

2. The second group is the rights of the general public. These are four-fold, viz.:

The right to be protected against the granting of a patent,

(*a*) Where the applicant has not invented the thing to be patented. The constitutional provision is sufficient authority for this statement.

(*b*) Where the applicant has not taken the steps required by the statute or if so has not taken them within the time limited thereby. This is with reference to the due proceeding mentioned in Section 4886.

Thus he must not fail to disclose the invention upon which the patent is to be based, in his application therefor;

nor to particularly point out and distinctly claim what is his invention or discovery (Sec. 4888); nor to file within two years of the first public use or publication and within one year after his first application for foreign patent granted before his patent here is granted.

Again there is the right of the public to be protected against the granting of a patent,

(*c*) Where it was already in possession of the thing sought to be patented before the applicant made his invention. I shall discuss this point in more detail when I come to consider the defense of anticipation or want of novelty.

Finally there is the right of the public to be protected against the granting of a patent.

(*d*) Where the Government has already once paid the price of disclosure by granting a valid patent to the same or another inventor for the same invention. There may not be two valid patents based upon the same indivisible disclosure. The patent specification must set forth the subject-matter in consideration for the disclosure of which the patent is granted; and the public has the right to be protected against risk of being twice mulcted where the same identical subject-matter is involved. I shall have occasion to refer to this point again when considering the second of the defenses recited in Section 4920.

It is believed that the foregoing enumeration exhausts the rights of the general public. No member of the general public, as such, is under our system given the right to oppose the granting of a patent. It is the duty of the office, where there is just cause, to refuse the grant and thus to protect the public interest. The Office may draw information from any source but nobody outside of the Office has any officially recognized standing except in defense or support of his own right to a patent. This brings us to the consideration of the third of the above groups, viz., the rights of rival inventors.

3. The provision of the statute upon interferences is Sec. 4904, which provides that where there are rival applicants or an applicant for a patent to an invention already patented to another whose patent has not expired, the Office must proceed "to determine the question of priority of invention." This phrase "priority of invention" occurs nowhere else in the statute. It is intended to cover only those cases where two parties are claiming the same thing as against the public.

I have thus briefly outlined the fundamental rights to be protected, because I believe that a study of them will explain much that is difficult in the decisions. There is confusion in part between the rights of an individual as a member of the general public on the one hand and as a claimant for a patent on the other. The statute must cover all such rights, and that in broad and general language. But inferences drawn from the general language of the statute must be strictly in accord with the fundamental rights which have been pointed out.

Let me take a particular illustration. It is very often said that the present statute requires the Office to grant the patent to the first inventor. As has been shown, it does not contain such a requirement. At the most it is there by inference. It is true that the applicant must swear that he believes himself to be the original and first inventor. But Sec. 4886 says that any person who has invented something of patentable character may receive a patent upon due proceedings which include only the prescribed oath, provided that the thing was new and not public when he invented it, nor more than two years before he applies. The language is too broad to warrant the statement that a patent is not valid if it be granted to one who is not the original and first inventor, unless the question, who is the first inventor, be considered with reference to the right which it is sought to protect against invasion. Is it a pub-

lic right or a private right? Is the question one of anticipation or of priority?

This distinction arises out of the contractual character of patents. The general public, through the statute, as an encouragement to invention and an inducement to disclosure, offers a patent to anyone who comes forward with a new and useful thing which he has invented. New means new to the public, one party to the contract; just as useful means useful to the public. If the thing itself is not in the public knowledge or public use, it is new as against the public unless novelty is negatived by the statutory equivalent of public knowledge or use of the thing itself, viz., a patent or printed publication describing it. I shall take occasion to review the cases upon this point of anticipation but at the moment I can only state my view that in so far as any public right against a patentee is concerned, new means new to the public and does not require that nobody ever thought of it or applied for a patent for it or used it before the patentee.

But there may be a third party to be considered in connection with the contract which the Government is about to enter into; for there may be two inventors, or more, for that matter. The Government must keep faith with all of these parties. It has invited anyone who has invented to seek a patent. Where there are rival claimants the one must win who has the best right. In such a case there arises a contest of priority, where the patent should be granted to the one who is the original and first inventor. In considering such rival private rights public knowledge of what has been done is of importance only in so far as it is necessary to protect against unreasonable delay in putting the public in possession of the invention, or fraud which may be aided by concealment. Thus sketches which are closely guarded, workings in secret, applications for patent,

all may be important and even controlling in determining the private right which is in controversy.

Automatic Weighing Machine Company v. *Pneumatic Scale Corp.*, 166 F. R., 288.

I now wish to take up the different lines of cases illustrating the points which I have briefly outlined above.

Discussion of Cases.

Anticipation. Upon this point I wish to bring out at the start that public use and public knowledge means knowledge and use of the actual thing and not a drawing or description thereof. In the case of *Coffin* v. *Ogden*, 85 U. S., 120, the Supreme Court said:

"The whole act is to be taken together and construed in the light of the context. The meaning of these sections must be sought in the import of their language, and in the object and policy of the legislature in enacting them. The invention or discovery relied upon as a defense must have been complete, and capable of producing the result sought to be accomplished; and this must be shown by the defendant. The burden of proof rests upon him, and every reasonable doubt should be resolved against him. If the thing were embryotic or inchoate; if it rested on speculation or experiment; if the process pursued for its development had failed to reach the point of consummation, it cannot avail to defeat a patent founded upon a discovery or invention 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."

I shall not quote other cases, but I cite the following: *Lyman Company* v. *Laler*, F. C. 8632; *Ellithorpe* v. *Robertson*, F. C. 4408; *Stillwell et al.* v. *Cincinnati Company*, F. C. 13,453; and *Detroit Lubricator Manufacturing Company* v. *Renchard*, 9 F. R. 293.

The knowledge and use relied upon must be public (*Gaylor* v. *Wilder*, 51 U. S., 477.) Secret knowledge or use, even though carried to the point of commercial operation, does not constitute an anticipation (*Matthes* v. *Burt*, 114 O. G., 764; *Acme Company* v. *Cary Manufacturing Company*, 96 F. R., 344; *Boyd* v. *Cherry*, 50 F. R., 279, 283; *Matheson* v. *Campbell*, 69 F. R., 597, 604; *Bullock* v. *Jones*, Fed. Cas., 2132, and *Heath* v. *Hildreth*, Fed. Cas., 6309). And even though an inventor may himself seek a patent, he cannot prevail over a subsequent inventor by reason of an actual reduction to practice and use thereof which he has kept secret until stirred by his rival (*Mason* v. *Hepburn*, 84 O. G., 14[illegible], and *Thompson* v. *Weston*, 99 O. G., 864).

If the existence of an actual machine or the physical thing can not be proved and recourse is had to other evidences of prior knowledge, only the statutory equivalent of actual knowledge and use can avail. As the Supreme Court said of the Corn-Planter patent, 23 Wallace, 181: "Can the fact that such an application was made and afterward voluntarily withdrawn and never renewed, make any difference? We think not. Had a patent been actually granted to Remy and Kelly it would have been different. The case would then have come directly within the 7th section of the Act of 1836, which makes a 'patent' or a 'description in a printed publication' of the invention claimed a bar to a further patent therefor. But a mere application for a patent is not mentioned as such a bar."

Trade circulars describing the invention have been excluded because not addressed to the general public and therefore not the printed publications of the statute (*Parsons* v. *Colgate*, 15 F. R., 600; *New Process Fermentation Company* v. *Koch*, 21 F. R., 580; and *Britton* v. *White Manufacturing Company*, 61 F. R., 93).

Effective Date of a Patent Considered as an Anticipation Only.

In the case of *Bates* v. *Coe*, 98 U. S., 31, the Supreme Court said that the defense of prior patenting or publication is established if the patent introduced for the purpose, whether foreign or domestic, was duly issued or the complete description of the invention was published in some printed publication prior to the patented invention in suit; and the patent offered in evidence or the printed publication will be held to be prior, if it is of prior date to the patent in suit unless the patent in suit is accompanied by the application for the same, or unless the complainant introduces parol proof to show that his invention was actually made prior to the date of the patent, or prior to the time the application was filed. But the court added:

"Neither the defendant in an action at law nor a respondent in an equity suit can be permitted to prove that the invention described in the prior patent, or the invention described in the printed publication, was made prior to the date of such patent or printed publication, for the reason that the patent or publication can only have the effect as evidence that is given to the same by the Act of Congress. Unlike that, the presumption in respect to the invention described in the patent in suit, if it is accompanied by the application for the same, is that it was made at the time the application was filed; and the complainant or plaintiff may, if he can, introduce proof to show that it was made at a much earlier date."

In this great line of cases (there are many others) the courts were not considering questions of pleading, but of substantial right. Where the question is one of anticipation it must be shown that the knowledge was already available to the public before the patentee made his invention.

Effective Date Where Two Patents Have Been Granted for a Single Invention.

There are cases seemingly at variance with this principle which on careful study will be found to come under a different rule. I have already mentioned the fact that the public must be protected against being called upon to give two grants in consideration of the disclosure of the same thing.

1. The case of *Drewson* v. *Hartje Mfg. Co.*, 131 F. R., 734, is here in point. In that case the patent to Drewson was held to be void because of a patent to Symons which was filed before but was granted after Drewson filed. But both of these patents were for devices for separating liquid from gases. Symons claimed the device just as clearly as did Drewson, and the court found that the apparatus of the Drewson patent is the apparatus of the Symons patent with a cooler added, the addition whereof was not invention. This was not, therefore, really a case of anticipation, but one where the public had already paid the price of disclosure by a grant to a prior inventor.

2. Lastly there is the line of cases where it is pleaded under Sec. 4920 that the patentee had surreptitiously or unjustly obtained a patent for that which was in fact invented by another, who was using reasonable diligence in adapting and perfecting the same. These cases are *Westinghouse* v. *Chartier Valley Gas Company*, 43 F. R., 582, and *Barnes Sprinkler Company* v. *Walworth Manufacturing Company*, 60 F. R., 605. In each of these cases the invention covered by the patent sued on and the patent filed before but granted after it was filed were for one and the same invention. The case was therefore one between rival patentees or presented a question like the Drewson case of protection to the public against the grant of two patents for the same thing (See *Reed* v. *Landman*, 1891 C. D., 73, 79).

Summary of Cases.

I shall close the discussion of these lines of cases by the following quotation from the case of *Diamond Drill Company* v. *Kelly Bros.*, 120 F. R., 282, in which I think Judge Archbald correctly states the distinction I am here pointing out (page 287):

"The Maier bed-spring fastener, patented May 13, 1890, of which much is made, may as well be disposed of in this connection. Aside from its date, it is not an anticipation, in my judgment; simply making use, as it does, for quite a different purpose, of interlocking coils fastened with a pin. But however that may be, its date is against it here. Where the question is one of anticipation, the date when the alleged anticipating patent was granted is what controls. This was decided in *Bates* v. *Coe*, 98 U. S., 31; 25 L. Ed., 68, where, speaking to this question, it is said: 'Neither the defendant in an action at law, nor a respondent in an equity suit, can be permitted to prove that the invention described in the prior patent * * * was made prior to the date of such patent, * * * for the reason that the patent * * * can only have the effect as evidence that is given to the same by the act of Congress.'

"In this respect it is put by the statute on the same footing as a printed publication disclosing the invention, which cannot be known until it has been given to the public by being issued. It is true that the defendant in such a suit may plead and show, as the statute provides, that the patentee was not 'the original and first inventor or discoverer of any material and substantial part of the thing patented'; and it is also true that the answer in the present instance sets up this defense, as well as all the others which the statute allows, alleging that the invention was known to and used by each of the patentees named in the several patents cited as anticipations, and was in public use and on sale by each of them more than two years prior thereto. Wholesale pleading of this kind does not commend itself, although it may not be unusual; but, entirely aside from that, it does not control the issues made by the proofs. The defense that the patent has been anticipated is one thing, and that the patentee was not the original inventor is quite another, and the proofs bearing on each are equally

separate and distinct. In the present instance, as between the Maier patent and the one in suit, we have at most, the same principle applied to different subjects—a bed spring and a belt fastener. It may be that the one which was patented first would be held to anticipate the other, although, as I have indicated, that is not my view; but it could not be said that either patentee, as against the other, was or was not the first inventor. In accordance with this, not one word has been offered to show that Maier was the original discoverer of this belt clasp, any more than that he or anyone else ever made any prior use of it; and, whatever be the allegations of the answer, that is not what is really contended for. He patented one device, and Jackson another, and each, so far as the other was concerned, was first in his own line. The only question raised is whether Maier's patent, assuming that it would negative the novelty of the Jackson, was prior in date of issue. It is clear that it was not, and that is the end of it. The case of *Barnes Automatic Sprinkler Company* v. *Walworth Manufacturing Company*, 9 C. C. A., 154, 60 Fed., 605, is not at variance with this view, because the issue there was who was the real inventor of the very invention in suit, which is entirely different."

Patent Office Practice.

In its treatment of patents as anticipations from the date of application the Office departs more widely from the practice of the courts than at any other point (*Ex parte Eddleblute*, 1890 C. D., 124; and *Millett & Reid* v. *Duell*, 1901 C. D., 410).

It would seem to follow from the foregoing discussion that the Office should do away with the requirement of Rule 75,*

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*Rule 75. 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 will not bar the grant of a patent to the applicant, unless the date of such patent or printed publication is more than two years prior to the date on which application was filed in this country.

that an inventor against whom a patent has been cited which shows but does not claim the invention which the applicant claims shall swear back of the filing date of the patent cited. I have not yet had occasion officially to pass upon this question. But I wish to suggest the following about it:

The present rule of the Office is a rule of very great convenience. It wards off a good many applications for reissue with interferences resulting therefrom. For patentees who found that features disclosed in their patents were appropriated by others who swore back of the date of grant only, would apply for reissue if there was still time, as in most cases there would be. The Office would thus be given additional work and many times the later applicant would merely pull the chestnuts out of the fire for the patentee. Moreover, a change in the rule would result in an increase in the number of patents which would be defeated by public use, for the obvious reason that many inventors about the time of filing an application will make some use of what is disclosed therein.

Then, too, the question of identity of invention claimed in the two patents would be treated by the courts very differently from the way in which the Patent Office treats it. Under Section 4887 in its present form and more particularly as it limited the terms of United States patents by foreign patents before the Act of 1897, there are decisions holding the invention in American and foreign patents identical without any close reference to the claims. Under the doctrine of the Drewson case discussed above, where the disclosure of the patent in suit did not differ in a patentable sense from that of the patent of earlier filing date I doubt whether a modification of the rule of the Office would be of real assistance to applicants in many cases. I must confess, however, that when a claim is rejected upon two or more patents taken together where one or all of them had not been granted at the

date of the application under consideration, I view the rejection with little favor.

I have presented these two fundamental questions of anticipation and priority in some detail because I believe that no branch of the patent law is in so great need of careful study. I trust that by the presentation of the contract theory of patents in the foregoing discussion I have suggested to you a sure pathway through the labyrinth of cases.

[NOTE.—Extracts from cases cited on page 12]:

National Tube Company v. *Cyrus Mark*, C. C. A., Sixth Circuit, decided July 25, 1914, by Denison, C. J., on the law of contracts as applied to patents.

"If, however, there was a doubt about the force to be given in the present case to this phrase as one of limitation, that doubt must be set at rest by consideration of the rules of construction in force in the Patent Office when this patent issued. The meaning put upon possibly ambiguous language of the grant, both by the Patent Office and by the patentee, becomes a binding rule of construction of that grant. This is both by the general *law of contracts* and by the rules of estoppel. It seemingly must be equally true of a fixed and universal construction, applied all the time to all patents, and presumably known to all patentees, as of a special meaning fixed by the special action."

Century Electric Company v. *Westinghouse Electric & Mfg. Co.* (191 F. R., 350), page 359:

"The second contention of counsel for the defendant is that patents No. 511,915 for the process and No. 555,190 for the apparatus are for the same invention, and therefore the latter is void. The rules and principles which have already been stated and applied in the consideration of the

validity of these patents in the face of No. 445,207 condition the decision of the question which this contention presents. The claims for these two patents were first made in a single application filed May 15, 1888. At that time there was a clause in rule 41 of the Rules and Practice of the Commissioner of Patents that 'claims for a machine and the process, in performance of which the machine is used, must be presented in separate applications,' a clause which was held to be unauthorized and void in 1904 in *Steinmetz v. Allen*, 192 U. S., 543, 563; 24 Sup. Ct. 416; 48 L. Ed., 555. Under that clause the Commissioner required Tesla to divide his application, to present his claims for his process and his claims for his apparatus in separate applications. He complied with this requirement and these patents issued on the separate applications. *There can be no doubt, therefore, that at the time the contracts, evidenced by those patents, were made the parties to them believed that they were for distinct and separate inventions and intended that patents for them as such should issue.* But counsel argue that notwithstanding this fact the patented process cannot be used without the patented apparatus, nor the patented apparatus without the patented process, and from this fact they deduce the conclusion that they are for the same invention. The deduction does not seem to be warranted."

On Avoiding Interferences Pursuant to the Decision in the Fowler Car Company Case

BY

THOMAS EWING,
Commissioner of Patents.

June 8, 1917.

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

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The decision of the Supreme Court of the United States in the case of Thomas Ewing, Commissioner of Patents, Petitioner, *vs.* United States *ex rel.* The Fowler Car Company has sustained the practice of the Office, begun in the month of December, 1914, and referred to in the annual report for the year 1915, according to which inquiry is made of the *junior applicant* as to his date of conception before an interference is declared, and where the date of conception is later than the filing date of the *senior party* the *senior* application is sent to issue.

The opinion does not set forth to any considerable extent the reasons which led to the establishment of this practice, nor does it hold that the practice is required by the statute. The wisdom of the practice having been questioned, I have deemed it worth while to state briefly what considerations led to its adoption.

It is the primary function of the Patent Office to grant patents for patentable inventions. It is a part of its duty to perform this function promptly. It is to the public interest that an applicant not only be given an opportunity to obtain his patent promptly but that he be required to do so unless some good reason for delay can be shown.

With this conception of the duty to applicants and the public, I have urged upon the Office and upon attorneys that the prosecution of cases be expedited.

The course pursued has not been everywhere or at all times recognized as the wise course.

So far as the opinion of the Office is concerned difficulty has arisen out of the fact that the number of applications required to be acted upon is larger than the corps can dispose of properly.

There develops as a result of this difficulty two tendencies—one a tendency to allow the work to fall into arrears; and the other, a tendency to make incomplete actions.

The inevitable result is illustrated by the condition of the Office when I came in as commissioner. A count made as of June 30, 1914, showed a total number of applications in all stages short of allowance of 116,832, which, compared with the number shown by a count made by Commissioner Moore as of January 1, 1912, indicated an increase of 8,700 in two and one-half years, or nearly 4,000 a year.

The number of applications filed per year during the three years 1912, 1913 and 1914, averaged about 68,300. The count indicated therefore that the Office was finally disposing each year of about 94 per cent of the number of cases which it was receiving.

It has developed that the accumulation had gone on until there were at least 25,000 more pending applications than would have been in the Office had prompt prosecution always been enforced. These increased the number of amendments filed each year by one-quarter to one-third of what would have come in under normal conditions, largely increased the number of appeals and interferences over what would normally occur, and by furnishing many instances of long extended prosecutions brought the Office into disrepute.

I insisted that the corps dispose of a full year's business each year; and, in order to catch up, do a bit better.

It would have been easy to get applications off of the examiners' desks by hasty actions which would only bring them back and create trouble and delay. The important problem was how to reduce the number of applications under prosecution; that is to say, awaiting action either by the Office or by the attorneys. This could only be accomplished by requiring thoroughness of actions both on the part of the Office and of the attorneys. The showing in this respect has been very satisfactory.

In the two years and a half from June 30, 1914, to January 1, 1917, the total number of applications under prosecution was reduced by 19,000 or nearly 8,000 *per annum*. I do not believe we can at the present rate of filing of applications ever reduce the number under prosecution below 90,000. Therefore three-quarters of the possible reduction had been effected on January 1st last. Doubtless considerable progress has been made since that date so that to the present time fully 80 per cent of the work of reducing the number of applications under prosecution has been accomplished.

Incidental to this work and as a by-product, so to speak, the number of applications awaiting action by the examiners has been greatly reduced. At the end of last week, June 2, 1917, the figures were as follows:

New applications	11,400
Old "	4,908
Total	16,308

When I entered the Office the report for the week ending August 16 1913, showed the following number of applications awaiting action:

New applications	12,344
Old "	16,365
Total	28,709

The reduction in 45.5 months has amounted to 12,401 applications, or 272 applications per month. There has been an average of about 290 assistants not assigned to interference or classification work. The reduction has, therefore, required only that each assistant act upon one more application per month than the number received. Had each assistant acted on one less than the number of applications received per month, we would today be in arrears more than 41,000.

If the Corps will continue their present rate of work for about one year more the work in the Office can be made current so that when an application or an amendment is filed it will be reached for action about as

promptly as the clerical work of the Office will admit of.

In the course of this elimination of applications, the Office is also ridding itself of the burden and scandal of long delayed applications.

The situation of the Office, if it will maintain this condition, will then be that it is only required to do one year's work in one year's time (which in any event it will eventually be required to do), and that it will be doing its work under conditions of maximum efficiency and of maximum convenience to the public. The work will be simplified and the number of amendments filed per year will fall off materially.

It must be remembered, however, that this accomplishment is one the benefit of which will be lost unless the expediency of keeping up the work and enforcing prompt thorough prosecutions is kept before the mind of the corps. There is nothing so easy to do as to fall behind. "The primrose path to the everlasting bonfire" runs down hill.

The enforcement of prompt prosecutions is a matter of especial difficulty in interferences. The general scheme of the Patent Act is that patents shall be granted upon *ex parte* proceedings; but where a question of priority of invention arises this has to be tried out.

From the time when I came in here, I have given close attention to the problem of handling interferences. The result has been the conclusion that the sum total of human misery chargeable to interferences can be diminished only by diminishing their number. An obvious way of diminishing the number of interferences is to avoid them where no question of date is involved; that is to say, where the date of conception of the junior party is later than the date of filing of the senior party.

The Supreme Court has held that the Commissioner has authority to adopt this practice with a view to reducing the number of interferences. Fortunately the court has not undertaken to decide more, but has left it to the Commissioner to determine to what extent the Office shall exercise its authority.

The most important point for inquiry is how the Office shall treat those collateral questions which may

involve an attack on the application of a senior party as a valid constructive reduction to practice of the subject-matter in controversy.

It is my belief that where an interference threatens and a question of sufficiency or identity of disclosure or of new matter arises the Commissioner should not undertake to dispose of it *ex parte*. He should also be very cautious where the senior party's application is a renewal or a reissue application or a division or continuation of an older application upon which reliance must be had to get back of the date claimed by the junior party. It is only where no collateral question arises that the Commissioner, upon ascertaining that the junior party conceived after the senior party filed, should pass the senior application to issue without declaring the interference.

In the argument for the Fowler Car Company the statement was made that the rules of practice make these collateral questions *inter partes* questions, and that therefore the Commissioner should declare an interference wherever applications were found with patentable interfering subjects-matter. The reply to one phase of this argument was set forth in the brief on behalf of the Commissioner as follows:

> "The Commissioner being granted full authority to form an opinion whether an interference in fact exists or not, and the rules of the Office prohibiting new matter, the Commissioner should be trusted to determine whether a question of new matter is presented or not. If a question of new matter is presented it would properly be his duty to declare the interference and permit the question to be fought out *inter partes*, but if in his judgment no question of new matter arises he should not be required to declare a multitude of interferences lest now and then through bald mistake a patent may be improvidently granted. Particularly is this true, where, as the McKnight-Pohle case (30 App. D. C., 92) shows, such a mistake is not fatal to the rights of the party aggrieved thereby.
>
> "The statement in the opinion below, that it is the design of the law to protect the property rights of the small minority who may be found

entitled to prevail, assumes a loss of right that does not occur by the mistakes of the Office, for correction of which the statute, in fact, by elaborate provisions supplies a remedy."

The course under consideration will not be applicable even in all cases which are free from doubt. No matter what effort we may make it is not always possible to get the senior party's application ready for issue, and instances will arise where the delay will be serious. In such cases it will be necessary to declare interferences which otherwise would be avoided. For the declaration of the interference with the consequent throwing open to the junior party of the senior party's application gives to the former the opportunity to cancel the claims respecting which he is beaten and take out a patent for what may remain to him.

The Supreme Court was asked expressly to decide whether any right of opposition is conferred by Section 4904. The brief submitted on behalf of the Commissioner said:

> "In conclusion, we respectfully ask this court to bear in mind that the right under the statute is what is here important. If this court should conclude that the right exists under the statute, but that the Commissioner's power has been limited by the rules of practice, we trust that this will be made clear. The question of power under the statute could not be more simply presented than in the case at bar, and several hundred like cases arise in the Office every year. . . ."
>
> "There is but one application of the senior party involved, and therefore no question arises of renewal, division, or continuation; nor, in the opinion of the Commissioner, does any possible question of new matter arise. If, in such a simple case, the Commissioner, though possessed of information actually gained from the junior applicant himself, showing that there is no question of priority, is none the less obliged to refer the

applications to the primary examiner 'to determine the question of priority of invention' and hold up the senior applicant while the proceeding of interference is gone through with, then the right of opposition based on the chance filing of a concurrent application is read into a statute, which, under all other circumstances, refuses right of opposition excepting to the constituted authorities of the Government itself."

Elsewhere it was said:

> "If a system of opposition is to obtain, it should be general in its applicability. To enforce the construction of any section of the patent statutes which will result in development of oppositions dependent upon the chance filing of an application is to modify the practice in a manner not in harmony with the general scheme of *ex parte* grants made by the Government after an official examination."

The Supreme Court has held that there is no right of opposition conferred by this Section 4904 of the Statute.

The right of opposition has come to be recognized under Section 4904 partly because the Office was frequently assisted materially in developing the art and partially because the granting of patents to the senior of rival applicants, if they be improperly granted, works a hardship, though in my opinion not technically a legal injury to junior parties.

Therefore while the Office is left free to escape the burden of many interferences, it is placed under especial duty to exercise unusual care in gathering the art so as to avoid improper grants of patents where rights other than those of the successful applicant are obviously involved. If I could induce Congress to give the necessary increase in force, I would give to the law examiner supervising the declaration of interferences a corps of eight or ten experienced and able assistants whose business it would be to see to it in all such cases that the art is adequately developed. They would be expected in fact to make the same kind of searches that attorneys representing junior

applicants have heretofore made to lay the basis for motions to dissolve for nonpatentability of the issues. But with the present burdened condition of the force, I can not see my way clear to take men from the regular work of examination for this work highly useful though it would be.

It will still be open to junior parties to cite such art as they wish, and it will be proper for the Office to inform them fully respecting the art found against the claims under consideration and invite presentation of art. This might be done even after it appears that because of the late date given by the junior party no interference will be declared. But in such a case the art presented must be considered *ex parte*.

Particularly should great care be exercised if claims are to be suggested to the senior party which are taken from the junior application. As a general rule this should be avoided. But it is proper to suggest to the senior party that his claims will be allowed even without certain limitations that may be found in them. For the senior party must not be treated less considerately than he would be if the interference were declared.

With every reasonable precaution taken what mistakes are made must be accepted. For against possible injury to the public or the junior party arising out of improvident grants must be weighed the right of an applicant to obtain his patent when he asks for it.

The brief presented to the Supreme Court on behalf of the Commissioner sets forth this point and incidentally the convenience to the Office in the following paragraphs:

> "An applicant without considerable means may be prevented by a succession of interferences with parties junior to him from obtaining his patent for 5, 10 or 15 years. It may mean financial ruin. Consider, for example, inventions in the field of toys and puzzles, ornamental designs or patterns in dress goods, or other articles of mere fashion which are usually short lived. Or, to cite a large engineering development, take the propulsion of street cars by cable, which came into vogue in the last century during the late seventies, flourished

during the eighties, and became obsolete during the early nineties. Aside from these special cases, there are many inventors in every field of endeavor who must obtain their patents promptly or lose all reward of their industry and talent.

"The injustice to the senior party arising out of delay in the granting of his patent can not be too strongly pressed. Oppositions growing out of interference proceedings have been made in the past in many cases instruments of oppression by strong manufacturing concerns engaged in infringing. While the application is still in the Office, no right of action and no ultimate right of recovery is acquired. Though there is a right of recovery after patent against individual users (which practically speaking can not be enforced), whatever manufacturing is done and profits made by rival manufacturers while the application is delayed in the Office is absolutely lost to the inventor. This is true, even though he ultimately obtains a satisfactory patent and is successful in suits upon it. It is not a compensation that his patent extends for 17 years from the date of grant; for 17 years is more than the life of many inventions and may extend beyond the life of the patentee. The infringer may skim the cream and get out of business before the patent is granted. This is of frequent occurrence. It is the interest of the inventor which the Office, in the practice now attacked, is seeking to protect, not as against an assignee, but against a rival and junior inventor or infringer.

"During the year 1916 there were declared 1,286 interferences. In 344 of these interferences orders to show cause why judgment should not be entered were issued against all junior parties because they alleged dates of conception of the invention subsequent to the date of the filing of the application of the senior party. The larger part of these 344 interferences, under the practice of making a preliminary investigation to ascertain the date of conception by the latter applicant, would never have been declared.

"In the court below it was argued that the fact that in only a small percentage of cases does the later applicant succeed in proving priority, where the dates are a year apart, was no reason for refusing this small percentage their right. It has not been contended that it was. But the fact that only a small percentage ever succeeds is a reason for making a preliminary investigation, and for confining the interferences to approximately that small number, instead of declaring a large number of interferences in order to include them. Of the 344 interferences referred to above, in which orders to show cause were issued during 1916, from 250 to 300 would in all probability have been eliminated by the procedure attacked in this case.

"In every legal proceeding someone is inconvenienced. The theory of the practice attacked is to spare the man who on the record presented presumably has the right to a patent, and to subject the junior applicant, who presumably has no right, to the inconvenience of postponing any objection as to patentability, etc., that he may be able to present until after the patent to his rival has been granted. Thus, hundreds of applicants are spared vexation and delay which in the end is shown to be needless.

"The interest of the senior applicant is not alone involved. There is a large public interest which demands for its protection prompt prosecution of applications. Manufacturers have frequently been injured by the granting of patents upon applications which have been pending for years in the secret archives of the Office, and which when granted are found to cover business developed innocently and in ignorance of the pending applications. In 1914 there were in the Office more than 4,200 applications which had been pending over five years. Today there are about 1,600. Little further progress can be made with this salutary reform if hundreds of unnecessary interferences are to be established each year.

. . .

"To the statement made to the court below, that the Commissioner is overturning a practice of 40 years, it may be answered that during these years the public interest has not been respected; and applications have either willfully or unavoidably been detained in the Office far beyond any reasonable need. The correction of such evils is the business of administrative officers, which should not be prevented by the courts, except for the preservation of important and clear rights.

"The right that is claimed here is the right to see that the Office makes no mistake in passing out the senior applications. If the Office were entering a judgment against the junior party there might be force in the contention. But, as stated above, no judgment is entered. All that happens is that another applicant gets a patent. In so far as that patent discloses the invention, the junior party has lost nothing to which he is entitled. In so far as the patent fails to disclose the invention, the junior party has lost no rights; for he is free to show the deficiency of the patent and to obtain a patent on what is left."

I can not close this review of the main accomplishments of the last four years in expediting and simplifying the work of the Office without expressing my warm appreciation of the earnest and capable support which I have received from the Office and the profession.

June 8, 1917.