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Perhaps it would be well to preface my remarks with the statement that some things I shall say are not, as far as I am aware, supported by any court decisions, and such things must be taken, therefore, as conclusions reached as the result of a long experience in dealing with the particular questions considered, rather than as dicta sanctioned by the authority of some judge.

The provision of the Constitution under which Congress was granted authority to enact the Patent Law, gave it the power to pass laws which should secure, for limited times, to authors and inventors, the exclusive rights to their writings and *discoveries*.

It is generally the practice to speak of the Patent Laws as designed to protect *inventions*, but the language of the Constitution refers to *discoveries*. Are the two terms synonymous? Or is there a distinction between them? As a matter of fact patents have been granted and rightly so, for both *inventions* and *discoveries*, and most writers have made no particular distinction between the terms. However, the two terms, "invention" and "discovery" have quite distinct meanings and should be distinguished.

Without attempting to define what constitutes an invention, it will be of interest to differentiate the two words, and I have found no writer who has so satisfactorily discussed the difference between the two words as Merwin in his "Patentability of Inventions."

> "Most patents," he writes, "are granted for inventions strictly. The patentee has invented or created a device, contrivance or mechanism, which operates according to known laws,

> or depends upon familiar properties of matter. He has found out nothing new in nature but he has created a new way of using or combining familiar materials, or has caused a force in common use to operate in a new situation or for a new purpose."

The discoverer, however, as opposed to this, has found out some new law of nature or some hitherto unknown property of matter which he applies to some useful purpose. If there be a discovery, there need be no inquiry as to how it was made or how much ingenuity was needed to embody the discovery in mechanism productive of a new and useful result.

The hot blast case, so familiar to every one, is in point. Upon the discovery that a hotter fire would be produced in a furnace if the blast of air to support combustion were preheated, no ingenuity whatsoever was requisite to devise some mechanism to make the discovery available for practical purposes. Or, to cite a later case, the courts held a celluloid top for a salt shaker involved something more than a non-patentable substitution of material, and the patent was sustained because of the *discovery* of the fact that a film of moisture does not attach itself to celluloid as it does to metal or glass, with the useful purpose that this hitherto unknown characteristic of celluloid prevented the caking of salt on the top so annoying in damp weather in the case of glass or metal tops. (Hogan vs. Westmorland Specialty Co., 163 Fed. Rep., 289.) It is of interest to note that this alleged property of celluloid on the strength of which the higher court sustained the patent, appears to have been the discovery of the plaintiff's attorney, long after the patent was granted. There is not the slightest hint of any such property of celluloid in the specification of the patent; as far as the record shows this peculiar property of celluloid was wholly unknown to the patentee. I shall have occasion to refer to this later.

The court said in Colgate *vs.* Gold Stock Telegraph Co., 4 Banning and Arden:

> "The gist of the invention is the *discovery* of the fact that gutta-percha is a non-conductor of electricity."

Mr. Justice Grier in Corning *vs.* Burden, 15 Howard, 252, said:

> "A new process is usually the result of a discovery, a machine of invention."

Again quoting from Merwin, in contrasting inventions and discoveries, he says:

> "The courts never contrast 'discovery' as they do 'invention' with the 'skill of the workman.' "

The determination of the patentability of an invention is often a troublesome matter and is one regarding which different minds do not agree. In Pearl *vs.* The Ocean Mills, Judge Shepley said:

> "No more difficult task is imposed upon the court in patents cases than that of determining what constitutes invention and of drawing the line of distinction between the work of the inventor and the constructor."

While, as stated, no attempt is made to define an invention, the distinction between the words "invention" and "discovery" is important because quite a considerable portion of the work in the chemical divisions of this Office relates to discoveries rather than to inventions. As before mentioned, if a patent be asked for a discovery, this Office need not concern itself with an inquiry as to the mental process by which the discovery was made. A discovery may be purely accidental, as when a certain manufacturer of nitroglycerine accidentally spilled some of it upon sand by which it was absorbed, which, to his surprise, exploded, upon the application of a flame, instead of burning, as he expected.

It is related that in the winter of 1861-62 a certain distiller of oil built a fire under his still and went off to dinner expecting to return in about half an hour. While at dinner he was taken with a fit, so that it was some four or five hours before he returned. To his great surprise, he found on his return, that the gravity of the distillate then coming from the condenser, was lower than it was before he left for dinner. This was the discovery of the

cracking process in the distillation of mineral oil, in accordance with which heavy oils can be broken up into lighter ones.

Again, a patentable discovery may be the result of a long, patient series of experiments, as when the charred fibre of the bamboo was found to constitute an excellent carbon filament for an incandescent electric light.

It seems that this discussion as to the difference between an *invention* and a *discovery* is not merely an academic one but on the contrary is of considerable importance in the decision as to whether or not a claim should be allowed.

If the Examiner is satisfied that a real discovery has been made and the means or method of making the discovery of service in the arts have been devised, the claim should be allowed, however obvious such means or method may have been, once the discovery has been made. There need be, as stated, no inquiry as to how the discovery was made, and it may be doubtful whether an apparent unimportance of the discovery would justify a rejection. It is impossible to foresee what may result from an apparently trivial discovery.

In those divisions of the Office which treat applications for patents concerned with chemical industries, a considerable proportion are purely mechanical in character: in such applications nothing is involved which is either distinctly chemical or physically chemical in character. Those applications which are purely mechanical in character, it is not the object of this paper to treat. The same questions come up for adjudication in them that occur in the mechanical inventions treated by other examining divisions. The purpose of this paper is to set forth, in a more or less desultory manner, some of the problems which are peculiar to applications for patents for chemical inventions or discoveries.

In the first place, it may be noted that a broad distinction exists between chemical discoveries and inventions which are wholly mechanical. The distinction, which is far-reaching in its effects, is this: No prophesy is possible in chemical discoveries such as is frequently possible in purely mechanical inventions. From an inspection of the drawings and a perusal of the speci-

fication in the majority of applications for purely mechanical inventions, it is often safe to say that the invention is operative. On the contrary, it is never possible to foretell with certainty, that any untried chemical process is operative. For example, it might be presumed that because caustic potash will give a certain result, it would be safe to infer that caustic soda would have the same effect, and would therefore be an exact equivalent. But such an inference would not be safe; an actual trial or demonstration would be necessary to prove the inference. In many cases the two would be equivalent but not in all. Both, for instance, will saponify fat but the one yields a soft soap and the other a hard soap.

One element or agent is never universally the equivalent of another. Whether two elements or agents are equivalents depends on the particular problem. This is true, though it is not always recognized in mechanics. A spring is often the equivalent of a weight but there are cases where they act so differently that the substitution of one for the other involves patentability.

The courts have repeatedly recognized the futility of an attempt to prophesy or foretell in chemical procedure. Thus in Stevens *vs.* Keating, 2 Webster, 181, the judge said:

> "I may say that I do not quite go along with the doctrine of equivalents in chemistry, applied in the same way as in mechanics. . . . Although you can predict with confidence in mechanics, in some instances . . . in chemistry you almost entirely fail. You can not, because sulphuric acid will succeed, tell at all that nitric acid will succeed or that any other acid will succeed, until you have tried. . . . You can not anticipate the result."

In Tyler *vs.* Boston, 7 Wallace, 327, the court said:

> "Now a machine, which consists of a combination of devices, is the subject of invention and its results may be calculated, *a priori*, while a discovery of a new substance by means of chemical combinations of known materials is empirical."

In Hicks *vs.* Kelsey, 18 Wallace, 670, the court said:

> "And in some compositions of matter, a different ingredient changes the identity of the compound, whereas an iron bar in place of a wooden one and subserving the same purpose does not change the identity of the machine."

To the same effect was the decision in The National Filtering Co. *vs.* Arctic Oil Co., 8 Blatchford, 416, in which a patent for filtering Coal Oil or Petroleum through bone black was sustained, notwithstanding the fact that the same filtering agent had been employed in filtering other liquids, even vegetable oils.

The gist of the matter appears to be, as suggested in Tyler *vs.* Boston (supra), that many of the meritorious inventions in chemical lines are based upon discoveries. Patents granted thereon are founded on schemes that render the new discovery available for useful purposes, rather than upon an ingenious (or "surprising") combination of mechanisms productive of some new mechanical result or of some old mechanical result in a new or improved manner.

If this is the fact, and if, as stated, it is impossible to foretell what will happen in a chemical procedure until it has been tried, why then, it may be asked, should not every applicant in chemistry be granted a patent unless the claims be exactly met? And does the doctrine of equivalents obtain at all in determining patentability in applications in chemical lines?

The best answer to these queries, and perhaps the only one, is based upon the doctrine of *reasonable expectation*. This doctrine is very well stated by Commissioner Duell in Bender *vs.* Hoffman, 85 O. G., 1737. The alleged invention involved in that case was for an alkylated dye stuff, and the decision, in substance was that the effect of alkylation on other dyes being so well known, there was good reason to anticipate what would be the result in any particular case. The decision of the German Patent Office was quoted with approval as follows:

> "It has not been proved or pretended that through this process another technical result

would be obtained beside the known effect of the greater resistance to alkalies. . . . After so many precedents such a process of alkylation is no longer patentable, if by the same, a new technical result is not obtained."

It will be useful to consider, by way of example, some of the various factors which enter into the consideration of chemical procedures, or which may modify in one way or another the effects produced.

First, there are the materials, chemicals or ingredients involved, and under this—

(a) The quantities or proportions;
(b) The purity of the materials;
(c) The condition of the materials, as solid, liquid or gaseous, or if metals, as being in the colloidal state, etc., etc.
(d) The strength of solutions, if the agents are in solution;
(e) The solvents employed.

Second, the conditions such as—

(a) Temperature;
(b) Pressure;
(c) The nascent state;
(d) Electrical conditions or other conditions which may effect molecular or atomic vibrations such as light, X-rays, etc.
(e) The effect of catalyzers.

Third, The time factor.

No pretense is made that this list comprises all the factors or variables which may influence the results obtained in chemical procedures. Nor is there any possibility of discussing at any length these factors within the proper limits of this paper. But it may not be wholly without interest to consider a few examples of cases in which some of the factors or variables noted play an important part.

Chemical reactions are either reversible or irreversible. A reaction is said to be reversible when change of

conditions changes its direction. Quantities and temperatures are important in determining the direction of a reaction. As an instance of the effect of quantity or mass in a reaction, hydrogen sulfid will precipitate cadmium sulfid from solutions of cadmium chlorid, but cadmium sulfid dissolves in an excess of hydrochloric acid. As to temperature as a determining factor, if sal ammoniac be heated to 350°C it decomposes into ammonia and hydrochloric acid gas, but if the temperature be lowered, ammonium chlorid is reformed.

Prior to the invention of Adams in 1869, all attempts to electro-deposit nickel on other metals, as iron, had failed, because the solutions employed had not been sufficiently pure. Adams succeeded where others had failed and his patents were sustained. The United Nickel Co *vs.* Harris et al., 17 O. G., 325.

Practically, the exact contrary to this is found in the generation of hydrogen resulting from the action of sulfuric acid on zinc. In this impurities play an important role. If the zinc be quite pure, it is scarcely attacked by the acid, due to a film of hydrogen forming on the zinc, protecting it from the acid. The zinc should contain certain impurities which are more electro-negative than zinc. Again the acid should be quite dilute.

The time factor is often very important. In the synthetical production of ammonia, as carried out in the works of the Badische Anilin-und Soda Fabrik Gesellschaft, it is important that the ammonia as produced be at once removed from the field of reaction. As opposed to this, in the old bark method of tanning, it was essential that the skins remain in the tanning bath a good part of a year.

Another illustration of variation of the factors will be instructive. Synthetical varnish resins or gums had been made by condensing phenols by the aid of aldehydes, certain temperatures and pressures being requisite. It had been demonstrated, however, that the process of condensation must not be carried too far, as otherwise compounds were formed that were insoluble in varnish solvents and so were unsuitable for the manufacture of varnishes. It occurred to Dr. Backeland to experiment along this line, to see what he would obtain if he carried

the condensation further than others had done. As a result he produced a new substance which he called "Backilite," a substance with which many of you are doubtless more or less familiar.

The conclusions to be drawn from these illustrations are obvious. If a variation of any of these factors results in a new and unexpected technical product, different in kind, patentable novelty must evidently be conceded. But on the contrary, if the variation gives only the same kind of result and the effect is what might reasonably be expected, then, generally speaking, no patentable invention has been made, as e. g., if the temperature be raised with nothing more than the expected result, that the reaction is correspondingly hastened.

Or, to put the proposition in somewhat different language; the variation to be patentable should be something *critical*. To illustrate what is meant by critical, it might be well to refer to certain mathematical curves, whose curvature gradually changes with a change in the value of the variables, until certain values are assigned to the variables, but when those values are assigned, the curvature suddenly and sharply changes, at a point called in mathematics, a cusp.

In the curve representing the solubility of sodium sulphate, there is such a cusp at 33°C. Below that temperature solubility increases with a rise of temperature, but at that temperature there is a sharp change and solubility decreases with a rise in temperature. The temperature of 33°C is therefore critical in the process of dissolving sodium sulphate in water.

One other illustration of the term *critical* will be given. Crude mineral oil consists of a mixture of a large number of different hydrocarbons having different specific gravities and different degrees of volatility. If such oil be carefully distilled it is possible to obtain different fractions which are only educts, that is to say, such fractions that the sum of them contains only what was in the original crude and in the same proportions. Such a process of distillation would be like an orange sorter in which oranges of various sizes are run over an inclined plate provided with circular holes of different diameters. But when a certain temperature is employed in dis-

tilling crude oil, there occurs a breaking up of some of the molecules of the heavier ingredients resulting in an increased yield of the more volatile distillates. The distillation of oil under such temperatures, a process of destructive distillation, is generally known as cracking. Owing to the increased demand for gasoline, there is great activity in inventions in this line. Evidently, a temperature which will crack oil is critical.

Chemistry is concerned with intra-molecular changes and chemical industries have to do with processes and apparatus by which man is enabled to control chemical affinities in such a manner as to produce new products resulting from intra-molecular changes.

The sciences of mechanics and physics are concerned only with changes outside of the molecules, while chemical industries relate to changes inside the molecule. In the former the essential characteristics of the material operated upon remains unchanged, but in the latter they are altered. This is, of course, elementary but is referred to here for the purpose of emphasizing the difference in the questions necessarily presented for adjudication in considering applications along chemical lines from those arising in purely mechanical inventions.

From the very nature of the problem presented to one who has made an invention or discovery in a chemical line, and from the fact previously stated, that prediction or prophesy is impossible in chemistry, and that slight changes in conditions may profoundly and critically alter the result (as has been illustrated) some important conclusions may be drawn.

One important conclusion is this: That the utmost exactness of detail should be given in describing the invention or discovery for which a patent is sought. Objection to this proposition has been made on the ground that if the procedure be too exactly described, the patent will be so limited as to be worthless. But a sufficient answer to this objection is that the applicant is not required to limit his claims beyond operative limits unless the state of the art is compelling. The exact procedure by which the best result has been obtained should be detailed and then the applicant should state how widely he has found that he can depart from the exact details recited.

One of the points in securing this necessary detail in description and on which sufficient emphasis is not always laid, is an insistance on accuracy of nomenclature.

In a recent case, an applicant stated that he employed amido-compounds, but each and every one of the chemicals specified was an amino-compound. On a requirement being made to change amido to amino, the applicant cited certain authorities to support his contention that the substances he employed were called by that name by some authorities. Thereupon the examiner replied that he was well aware that certain writers had used the terms indiscriminately, but that was no reason for not insisting that applicant use words with discrimination. In order that it may be known just what a patent does or does not cover, exactness in the use of language should be insisted upon.

The proposition has been made that a patent can not be generic unless it is more or less indefinite, and the apt reply to that is old. The boundaries of a thousand-acre farm may be just as well defined as of a one-acre farm.

In Merrill *vs.* Yeomans, 4 Otto, 568, the court said:

> "The public should not be deprived of rights supposed to belong to it without being clearly told what it is that limits these rights."

A not infrequent mistake in describing chemical processes consists in basing a generalization upon a certain characteristic which is wholly impertinent to the problem. As is familiar to every one all objects or materials have many characteristics, and any particular characteristic may be made the basis of a classification. The lexicographer selects the name of a substance as his basis of classification and puts together all objects the initial letter of whose name begins with any letter of the alphabet. But the lexicographer's scheme of classification evidently would be an absurd one to use in drawing claims. It would of course, be ludicrous for one who found that copper would do in a certain process to claim substances whose names began with the letter C.

More specifically, consider ordinary white granulated

sugar. It is white, it is granular, it is sweet to the taste, a solution of it has a certain effect on the polariscope, and chemically speaking it is a carbohydrate, i. e., a compound of carbon, hydrogen and oxygen in which there are twice as many hydrogen atoms in a molecule as there are oxygen atoms; thus it could be considered as a compound of carbon and water. Sugar has other characteristics, but those mentioned suffice to illustrate the point it is desired to make., Suppose in some particular process, the applicant were to use sugar, and in an effort to secure a broad generic claim, he covered carbohydrates. Then it should be made to appear from the inventor's researches or otherwise (as from the nature of the case) that sugar was effective because it is a carbohydrate and that carbohydrates generally would do. Suppose one were sweetening his coffee: Sugar will do it; many other carbohydrates, as starch, will not. Saccharin, which is not a carbohydrate but a coal tar product will do the work of sugar in sweetening coffee. However, saccharin could not be used as a substitute for sugar in the work of increasing the yield of alcohol when added to a liquor to be fermented.

It is evident then, that the question of equivalency must depend upon the particular problem. For drying air, strong sulfuric acid, anhydrous glycerin, strong alcohol, calcium chloride or carbide and hygroscopic salts generally might be equivalents. These substances, however, would probably not be equivalents for any other purpose.

It is clear, therefore, that one is able to generalize in phrasing claims for a chemical invention or discovery when, and only when, he thoroughly understands the principles involved and as a result of his own or other's experiments has ascertained what are equivalents, and as to equivalents, what are the common characteristics of two or more substances which make them equivalents for the particular purpose in hand.

In this connection, see Matheson *vs.* Campbell, 79 O. G., 686. It is interesting to note that the judge in that case spoke of the invention as a discovery. See, also, the cases, In re Dosselman and Neymann, 167 O. G., 983, and In re Ellis, 167 O. G., 981.

The courts have repeatedly stated (as in Cahill *vs.* Beckford, 1 Holmes, 48) that it is not essential to the validity of a patent that the inventor should have been sufficiently learned to have thoroughly understood or accurately stated the philosophy of a process which he has invented or discovered and reduced to practice.

This is true without doubt: it follows, however, from what has been said, that unless the inventor or discoverer does thoroughly understand the philosophy of a process of which he is the inventor or discoverer, he is wholly unqualified to know what are equivalents or how to draw broad claims.

The writer calls to mind a certain attorney of excellent standing before this Office who, it was related, stated that he did not pretend to undertake to understand fully the whys and wherefores of many of the inventions for which he solicited patents. He left that to the inventors, he said. It is submitted that that attorney or any other would be in position to serve his clients much better, because of the ability intelligently to draw broad claims, if he fully understood all of the principles involved in the applications he prosecuted before this Office.

If the attorney who prosecuted the application for a patent for a celluloid top for a salt shaker had understood the invention as the attorney who defended the patent in the higher court did, he would have drawn a claim for a top for a salt shaker made of material repellant to moisture.

The courts may, and sometimes do, give a patentee the benefit of unmentioned equivalents. Thus, in Chadeloid Co. *vs.* De Ronde, a patent was held to be infringed although the infringer replaced alcohol by acetone, even in the face of the fact that there was no hint of the equivalency of alcohol and acetone in the patent. It is believed, too, that no one could have foretold that they were equivalents in the particular case until tests had been made. So, too, in Triebacher Chemische Werke Gesellschaft *vs.* The Roessler and Hasslacher Chemical Co., 209 O. G., 1689, for a pyrophoric alloy of cerium and iron, the court gave the patentee the benefit not only of an unnamed equivalent but of an

equivalent which the language of the claim would exclude.

But to rely upon the beneficence of the court is not very safe, in face of other decisions to the effect that a patentee is entitled to no more than he has described.

Speaking of the liberality of the courts, the writer may perhaps venture his individual opinion that in some cases, the courts have been extremely liberal in construing patents going further than equity demands, when it is remembered, as has been stated, that in chemical procedures, it is absolutely impossible to predict with certainty, or to say that any proposed operation will turn out as expected until trial has been made. It would not be surprising if a reaction along this line would occur sometime.

The patent system was inaugurated to promote the growth of the useful arts, and with all deference to the learned judges of our courts, it seems to the writer that, while the utmost care should be taken to make the measure of protection commensurate with the amount of advance in the art contributed by an inventor or discoverer, protection should not go beyond that point. To afford protection to an inventor or discoverer for something beyond or outside of his disclosure is to give him too much, more than his discovery deserves. To do so places a serious handicap upon subsequent meritorious inventors or discoverers.

This criticism would seem applicable to the decision of the court to which reference has already been made, viz., the celluloid salt shaker top case, in which a patent was sustained on account of a certain property of a certain substance, which property was not mentioned in the patent, and was apparently unknown to any one when the patent was before the lower court (where it was declared invalid) and was only discovered by plaintiff's counsel when the case was before the higher court. It might be said that the property necessarily resided in the particular substance whether it was known or not. The patentee did not in that case add anything to the sum of human knowledge. He made no advance in the art. Counsel for the plaintiff made the discovery in that case and the reward, should, if it belonged to any one, have

accrued to him. The true rule is stated in the decision in re Sexton, C. D., 1873, page 66:

> "While a generous liberality should be shown to inventors, so as to afford ample protection for everything rightfully their own, an unwarrantable expansion of patents is a gross violation of lawful privilege, and the infliction of a great wrong upon other inventors and the public generally."

There are numerous decisions to the effect that a discovery or bare principle is not patentable. What is patentable is the apparatus or process by which the discovery is made to subserve some useful purpose.

It follows from this that claims based upon a chemical invention or discovery should be drawn in mechanical terms, i. e., in terms of the mechanical steps actually taken to embody the invention or to execute the process. An inventor has no right to claim operations of nature. His claims should cover the steps or means by which he puts into operation, and governs the operation of the natural forces of which he is availing himself to produce the result aimed at. This is not, however, to be construed too strictly. An applicant might, of course, for example, cover, in his claims, the step of heating and need not, unless the state of the art or the nature of the particular work requires it, state whether he heats over a naked fire, by a jacket or steam coil, by injected steam or hot gas, or by an electrical resistance.

Sometimes an applicant argues against a reference because of a different theory of operation. But it is axiomatic that if two parties act upon the same substance by the same series of steps arranged in the same order they are bound to obtain the same result, however much their theories may differ as to the results obtained or the reactions involved. This consideration affords an additional reason for requiring an applicant to cover in his claims the steps that he takes; it is, however, often not only admissible but desirable to limit what he does by a statement of the result produced by the steps he takes as, for example, adding an acid until the solution is neutral to litmus paper, or heating iron until it becomes incandescent.

In this same line should be considered the cases of prior accidental production of a given result. Reference has been made to some of the variables or factors with which chemical procedures are concerned. The factors or variables are numerous and frequently a considerable number of them are independently variable. Let it be supposed that in the execution of a given process there are several independent variables and that a certain peculiar result was occasionally obtained when a wholly fortuitous group of values were given by chance to these several variables. But the one executing the process did not know just what particular set of valves he ought to assign to his variables to produce this peculiar result whenever he wanted it. He only got it haphazard and by chance. The subsequent discoverer who ascertained the particular set of values he should assign to the variables in order to produce the peculiar result without failure and everytime he tried, would not be anticipated by such prior accidental production. See, Tilghman *vs* Proctor, 12 Otto, 707.

Speaking of the form which should be given to the claims drawn for a chemical discovery, it may be remarked that a common mistake made in drawing claims in such a case, is to make them fail to tell the story because of indefiniteness. A common form of indefiniteness is involved in the use of such words as "predetermined" or "desired." Neither the Office, nor the court which may be called upon to pass on the patent, possesses any means of searching the mind of the inventor to ascertain what is meant by such words. Sometimes an answer is made that the specification affords sufficient explanation; but the answer is not a good one. The statute requires that the claims point out what is conceived to be novel. In one case recently an applicant claimed substances "corresponding in properties to calcium hydroxide." This, when analyzed will be found to be wholly indefinite. In what properties did the substance correspond to calcium hydroxide? If in all, then it must be calcium hydroxide and nothing else. If it was not calcium hydroxide, it must have some properties different from those of calcium hydroxide. But the Office was not told in what respects it corresponded and in what it differed.

In another case an applicant claimed, "molasses or similar material," but failed to state the essential characteristics of the other material in which it was similar to molasses.

In the decision of the Commissioner in ex parte Adler, 65 MS, Dec., 337, the words "such as" in a claim were condemned.

Another thing should be said about claims. It sometimes happens that the character of an invention is such as to constrain the Examiner to allow a claim in a form which would be objectionable in other cases. If an invention has truly been made the inventor is certainly entitled to some sort of protection, and if a claim in one form can not be allowed, then it should be allowed in some other form. To illustrate, take the case of tanning a skin. After a skin has been properly prepared by the usual steps, it is tanned by immersion in a tanning liquor or ooze wherein it is allowed to remain until tanned, the strength of the tanning liquor being generally periodically increased. The process seems to be the same whatever the constitution of the ooze may be, and it would appear that a change in the composition of the ooze does not alter the process. Let it be supposed that the inventor has made a new composition of matter for tanning. He can secure protection by claiming the composition. There would be no trouble in that case, but apparently he should not be allowed a claim for a new process. The process would be simply the old one of immersion. But let it be supposed that the material used for tanning was old but had never been used for that purpose. Some one discovered that picric acid would tan skins. Evidently a patentable discovery was made and the discoverer was entitled to patent protection. But how was he to be protected? It does not seem that he would be entitled to claim the substance even with a limitation of the statement of the use. A claim for a tanning agent consisting of picric acid, is after all only a claim for picric acid and such a claim would simply amount to claiming an old substance under a new name. Thus it appears that the Examiner would be obliged to grant a patent on the process; there would be no other way of protecting the invention. Cir-

cumstances alter cases even in the matter of the form of claims to be allowed.

When an inventor or discoverer sets into operation certain forces acting on certain materials and so conditions the forces in action that their resultant produces a new product in consequence of intra-molecular changes, he has made a patentable invention. Inventions along these lines are sometimes of vast importance and present most dazzling dreams of wealth. These dreams are sometimes realized.

Consider again for a moment, the cracking of petroleum. Theoretically a heavy hydrocarbon of the paraffin series represented say, by the formula C_{21} H_{44} might be broken up so that each molecule would yield three molecules each containing seven carbons. Could this be done exactly a gallon of heavy residuum, worth perhaps 2 or 3 cents, would yield about a gallon and a half of excellent gasoline, worth at the present writing at retail about 30 cents. As the annual consumption of gasoline in this country is in excess of two billion gallons, it is easy to see how an invention along such lines is well adapted to raise the hopes of the inventor to great heights.

Sometimes the inventor enters fields in chemical researches which are either wholly new or in which very little experimentation has been done. Let it be presumed, say, he makes an invention in the field of photochemistry, in which very little has been done except along the line of photography, or being concerned with any of the numerous problems which may arise in biochemistry, makes discoveries involving the action of enzyms, antitoxins or various micro-organisms. In such cases problems are presented to this Office which, from the very nature of the case, must be treated quite differently from the manner in which ordinary mechanical inventions are treated.

The Cameron Sewage purification patent affords an interesting illustration. In that case it was found that by exposing sewage in a septic tank (i. e., one from which both light and air were excluded) for a considerable time to the action of such anaërobic bacteria as would operated under such conditions, that all the solids in the sewage

would be liquefied. Afterwards the sewage was run over baffles in the air and exposed to light where aërobic bacteria (i. e., those flourishing in those conditions) served to purify the liquefied sewage. The result claimed for this process was that sewage was converted into a liquid that was quite pure, if not potable. This patent was sustained (Cameron Septic Tank Co. vs. Village of Saratoga, 159 F. R., 453).

What is the Office to do with such processes? And what should be the treatment accorded to apparently foolish inventions? A very old U. S. patent claimed that by putting an alcoholic liquid in a tower 80 feet high, the water and alcohol would stratify. This was, of course, nonsensical and equally nonsensical was an old English patent for making gold out of wheat straw. This Office frequently has to deal with an application which appears perfectly foolish.

The Office is, however, not justified in absolutely refusing a patent on some procedure which at first blush appears hair-brained. How many of the inventions now in daily use, as, e. g., wireless telegraphy, or locating a bullet in a man's body by X-rays, would have been regarded as the ravings of a hopeless maniac by our pilgrim fathers. Notwithstanding, the Office is entitled to some evidence, more than the oath which forms a part of the application, that what appears to be a crazy notion, is something more than the vaporings of a lunatic. It will be remembered that a man who has been declared insane by the courts is not thereby incapacitated from filing an application for a patent.

In this lines of cases, it appears that sometimes an actual demonstration may be demanded. In other cases other evidence may be accepted as good and sufficient. Not infrequently this takes the form of a properly verified showing by recognized, disinterested experts, who either have themselves witnessed a demonstration, or have themselves conducted experiments. Such evidence should be carefully scrutinized, first as to the qualifications of the experts and second as to the character of the experiments. Ordinarily, only facts should be set forth in the affidavits, giving exact data of experiments witnessed or performed, with results obtained,

and the necessary tests by which the results were ascertained to be what they were alleged to be. There should, of course, be nothing of a hearsay character in the evidence.

In one case, the Examiner received an affidavit from one of the best known chemists in the country, one justly having the reputation of knowing more about a certain chemical art than any other man in the country. In the affidavit, the affiant stated that in the particular experiment described a certain pipe was said to introduce a certain gas into the system and he believed it did. Such a piece of hearsay evidence, relying on what he said he had been told by some unknown person, of course, vitiated the affidavit. In the same affidavit, the affiant, after detailing the facts (as supported by the hearsay evidence) gave his conclusions. That was, it may be remarked, rather out of place. It is the province of the Examiner to draw his own conclusions.

Is the Office obliged to accept conclusions or to acknowledge the correctness of what is set forth in affidavits? Not at all. What is set forth in the affidavits may be persuasive but is not necessarily conclusive.

In one case which came before the writer, an applicant alleged that certain miscible liquids after being thoroughly mixed would stratify and could be separated by decantation, and he based claims thereon. The Examiner knowing that no such action could occur rejected the claims as inoperative, whereupon the applicant submitted affidavits from five different persons that the operation would take place. He might as well have submitted affidavits that a man could lift himself by pulling on his boot straps. Upon the Examiner giving a final rejection, a petition was taken to the Commissioner who was asked to instruct the Examiner—

> "That an unsupported statement of theory by an examiner is not a sufficient answer to facts established by affidavits and exhibits."

In his decision, on the petition, the Commissioner stated that an examiner—

> "is not bound to accept affidavits as proofs unless he is satisfied of the truth of the allegations con-

tained therein. He may reject the conclusions stated in the affidavits when those conclusions are contrary to well-known scientific laws or facts."

Ex parte Davidson, 120 O. G., 2753.

Only one other point will be considered.

I have been speaking of applications which are concerned with inventions along paths that have been little trod and about which, therefore, little can be found either in patents or publications, and have thrown out a few suggestions about the treatement of such cases. I desire further only to state that in such cases, it appears that rather more should be required of the inventor in the way of describing his invention than in other cases. The statute requires that the specification shall be—

> "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."

The case is supposed to be one in which there is no art or science before known and no nearly analogous art or science. Such cases are not very common but still they do occur. It seems clear that in such a case, the Office should require extremely explicit details, more than is necessary in other cases. Whether or not the Examiner should question the operativeness of the alleged invention or discovery in those cases, must depend upon how they appeal to him.

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Double Patenting

A paper read December 7, 1916, before the Examining Corps of the United States Patent Office

BY

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Double Patenting

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The bald statement that Double Patenting is contrary to the intent and purpose of the patent system may be made without fear of contradiction. When does Double Patenting occur is the question to be settled. Before attempting to answer the question it would be well to consider certain of the early decisions which have helped to shape the law into its present form.

Justice Story in 1819 (Odiorne *vs.* Amesbury Nail Factory; 2 Mason, 28; Fed. Cases 10,430) held a patent granted to F. Reed for a Nail Cutting and Heading Machine in 1810 invalid in view of a patent granted to the same inventor in 1807 for the same invention. The court stated the reason for this holding to be that the power to create a monopoly is exhausted by the first patent, and, moreover, the second and later patent for the same invention operates to prolong the period of monopoly beyond that allowed by law. This ruling, laid down in the first case on record in which the question of double patenting arose, has been uniformly followed, some courts basing their decision upon the first ground and the remainder, the majority, upon the second ground.

The next case on record (Morris *vs.* Huntington; 1 Paine, 348; Fed. Cases, 9831), decided in 1824, involved the validity of a patent granted in 1822 to Morris for a stopcock in view of a prior patent granted in 1816 to the same inventor. Both patents were for the same invention but the first patent failed to expressly point out the particular invention and was therefore held invalid by the court as too broad. The second patent was accordingly taken out to remedy this deficiency and thus

properly cover the invention. In holding the second patent invalid the court suggested that the inventor should have surrendered his first patent and have taken out the second for the remainder of the monopoly to which he was entitled by his patent of 1846. It is interesting to note that eight years later, in 1852, the Supreme Court of the United States in Grant *vs.* Raymond (6 Peters, 218) held this practice proper. The general practice of granting reissue patents was instituted by this decision.

The case of Sickels *vs.* The Falls Co. (4 Blatch., 508; Fed. Cases, 12,838) decided in 1861, involved the form of double patenting which most commonly arises today; that is, the relation between a patent having generic claims and a patent to the same inventor having specific claims upon a form of the same subject-matter. The application for the generic patent was filed *after* the specific patent was granted and the claims in the later patent were met by the structure shown and claimed in the earlier. The later patent was held invalid upon the ground of double patenting and the law on which the holding was based appeared to have been so well recognized that no application thereof was necessary.

In 1865 the Supreme Court placed its approval upon the rule against double patenting (Suffold Co. *vs.* Hayden, 3 Wall., 315). The case involved several patents granted to Isaac Hayden, of which only 18,742 and 20,971 are of interest to us. The application for the later patent was pending in the Patent Office when that for the earlier patent was filed. The court held that the patents were for separate inventions since, although both applied to an improved trunk to be used in cleaning cotton and other fibrous substances, the earlier claimed merely the interior arrangement of the trunk while the later claimed a trunk having such interior construction in combination with a machine for opening the cotton and blowing it through the partitions. In its decision the court stated that if both had been for the same invention the first patent would have been held valid and the second invalid since the date of issue, not of filing, determines the question of priority between patents issued to the same party on the same invention.

The first recorded Patent Office decision on this point

(Ex parte Atwood, 1869, C. D., 98) concerned an application filed by Lewis J. Atwood having a broad claim which dominated patent 73,188 to the same party for the same invention granted before the filing of the application. The Commissioner refused to allow the application and in his decision said:

> "All claims granted upon the thing described have a common origin the original application. The monopoly founded upon them has a common duration the lifetime of the original patent. . . . When an application is filed, every invention contained in that application must be patented under it, or under such divisions of it as the wishes of the applicant and the rules of the Office may permit."

This holding would have greatly simplified the Office practice but was found to work injustice to the inventor and was later modified.

The Supreme Court in James *vs.* Campbell (104 U. S., 356; 24 O. G., 337), when deciding that reissue 4,143 with generic claims of patent 38,175 with specific claims to Norton was invalid because prior patents granted to the same inventor showed the combination now claimed, said:

> "It is hardly necessary to remark that the patentee could not include in a subsequent patent any invention embraced or described in a prior one granted to himself, any more than he could an invention embraced or described in a prior patent granted to a third person."

The Circuit Court of Vermont in 1884 (Vermont Farm Machine Co. *vs.* Marble, Comm'r, 19 F. R., 307; 27 O. G., 621) construed the terms "embraced or described" in the above decision to mean that the inventor is not entitled to a patent for an invention previously *patented* and stated that mere description is not a bar. A decision two years later by the Supreme Court of the District of Columbia in Hill *vs.* Comm'r of Patents (4 Mackay, 266; 33 O. G., 757) upon the identical state of facts, held that by "embraced or described" was included that con-

dition of affairs by reason of which applicant must apply for a reissue and not an independent patent in order to cover certain matter not previously claimed. This uncertainty as to when matter is "embraced or described" led Commissioner Mitchell in Ex parte Mullen and Mullen (50 O. G., 837; 1890 C. D., 9) to lay down the following rules for treatment of related applications to be followed in the Patent Office:

> 1. Where the applications are based upon the same structure so that there can be no patentable line between the claims but merely a difference in scope only one patent may be granted.
>
> 2. Where the matter embraced or described but not claimed in the first application could have been claimed therein, the application claiming such matter must be copending with the first, or else no patent can be granted therefor because the grant of a patent on the first application amounts to a dedication to the public of such matter.
>
> 3. Where the matter embraced or described but not claimed in the first application could not have been claimed therein, an application therefor filed within two years after the grant of the patent on the first application may be allowed unless a bar has been created by public use or sale.

Before taking up a more detailed examination of the question of double patenting the following decisions of the Supreme Court which have had great influence upon the present view of the question, should be considered:

> Miller *vs.* Eagle Mfg. Co., 151 U. S., 186; 66 O. G., 845; and
>
> United States of America *vs.* American Bell Telephone Co., 167 U. S., 224; 79 O. G., 1362.

The first decision concerns patents 222,767 and 242,497 granted to E. C. Wright for an improvement in Cultivators. A spring in the cultivator was so arranged as to urge the beam downward when in action and upward when raised above operative position. As originally

filed the application contained claims to both functions, but because of an interference upon the lifting function a divisional application for the depressing function was filed and became a patent, followed after the termination of the interference by the patent upon the lifting function. The Circuit Court of the Southern District of Iowa had previously reviewed these patents (Eagle Co. *vs.* Bradley, 35 F. R., 295) and held both valid. The Supreme Court, however, held that while the patents differed in purpose they were directed to the same element and that only one patent can be granted upon a single element.

In the second decision the Supreme Court placed the seal of its approval upon the rule laid down in the lower courts that the delay of the first filed application, having generic claim, in the Office through no fault of the inventor, during which time an improvement patent upon a second filed application is granted, does not render the broad claims of the second patent invalid.

Certain general rules applying to different phases of double patenting while well known, are herein recited in order to cover the subject completely.

1. When two patents have been granted to the same inventor for the same invention, the second is void. (Miller *vs.* Eagle Mfg. Co., supra.)

2. The date of issue, not of application, determines priority between patents. (Suffolk *vs.* Hayden, supra.)

3. In cases where both patents are issued on the same day, the courts generally have permitted the inventor to choose the patent to be held void. (See Brush Electric Co. *vs.* Julian Electric Co., 41 F. R., 679; Electrical Accumulator Co. *vs.* Brush Co., 52 F. R., 130, and H. S. Johns Mfg. Co. *vs.* Robertson, 89 F. R., 504; but see Crown *vs.* Standard Co., 136 F. R., 841.)

4. In cases of true double patenting the question whether or not the patents are for the same invention must be determined by consideration of the *claims*, not of the *description*. (Merrill *vs.* Yeomans, 94 U. S., 94; 11 O. G., 970; Mahn *vs.*

Harwood, 112 U. S., 354; 30 O. G., 657; Adams *vs.* Stamping Co., 28 F. R., 360.)

5. "The first patent does not invalidate the second patent for a distinct, different and separable invention whether generic or specific; whether an original machine or process, or both, or an improvement thereon, which is not actually claimed or dedicated by the earlier patent." (Matthews *vs.* Flower, 25 F. R., 830).

6. The later patent although valid over the earlier is limited thereby. (McCaslin *vs.* Link Belt Co., 139 F. R., 393.)

7. The fact that two applications by the same inventor have been assigned to different parties does not affect the bearing of the rule against double patenting, and the grant of the first patent to one assignee is a bar to the grant of a second patent to a different assignee. (Ex parte Pearsall, 135 O. G., 221; 19 Cour., 40-21.)

After this preliminary consideration of the growth of double patenting and of the general rules laid down, during such growth, a more careful analysis of the decisions on this question is in order. These decisions may be roughly grouped as follows:

1. Where the question of patentable distinction is involved.
2. Where the question of generic and specific patents is involved.
3. Where the question of Office practice is involved.

It has unfortunately proved to be impossible to make any large collections of decisions upon the same point. In fact, the decisions appear in many cases to be at variance and thus the subject can not be so bounded that only the cases within the bounds will be held to involve double patenting. The conflict in the courts is well illustrated by the treatment accorded to patent 495,443 and the reissue 11,872 thereof. These patents granted to C. J. Van Depoele were directed to an improvement in an overhead switch and a contact device

for use therewith. While the application for the original patent was pending, a divisional application was filed and became patent 424,695, the earlier filed application being delayed by reason of an interference. The claims in the later patent covered the structure claimed in the earlier patent except that a certain pressure element was not included.

The decisions of the courts turned upon the consideration paid to the pressure element. This element was found to be essential and thus necessarily included in order that the first patent claim a complete structure and hence the second patent was held void under the rule against double patenting in:

Thomson Co. *vs.* Sterling Meaker Co., 171 F. R., 111 (C. C. of N. J.).
Thomson Co. *vs.* Hoosick Co., 82 F. R., 461; 80 O. G., 967 (C. C. A., 2d Cir.).
Thomson Co. *vs.* Union Co., 86 F. R., 636; 83 O. G., 597 (C. C. A., 2d Cir.).
Thomson Co. *vs.* Jeffrey Co., 101 F. R., 121 (C. C. A., 6th Cir.).

The original patent was sustained in Thomson Co. *vs.* Winchester Co., 71 F. R., 192; 730 O. G., 2155 (C. C. of Conn.), on the ground that it was delayed in the Office by interference through no fault of the inventor.

Since the weight of decisions was against patent 495,443, the inventor applied for and obtained the reissue patent in which the pressure element was expressly disclaimed. The Circuit Court of New York (N. D.) in Thomson Co. *vs.* Black Co., 124 F. R., 495, held the reissue void since the claims could not be construed to cover the same invention as the claims of the earlier patent. Upon appeal the reissue was held valid as for a subcombination. Thomson Co. *vs.* Black Co., 135 F. R., 759 (C. C. A., 2d Cir.), but the same court later reversed itself and held the reissue invalid on the ground of laches and of undue breadth.

Thomson Co. *vs.* Western Co., 158 F. R., 813 (C. C. A., 2d Cir.).

PATENTABLE DISTINCTION.

This class includes the only cases in which true double patenting occurs—that is to say, in which the question is, whether or not both patents claim the same invention. The examination must be directed to the claims as pointed out above. The decisions falling hereunder have been analyzed and certain rules evolved from the analysis are laid down supported by one or more decisions.

a. Only a single patent may be granted for the same inventive idea.

*(N.) Odiorne *vs.* Amesbury, cited.
(N.) Morris *vs.* Huntington, cited.
(N.) Smith *vs.* Ely, cited.
(C.) Miller *vs.* Eagle Mfg. Co., cited.

The fact that the claims of the two patents for the same inventive idea differ in language does not prevent the operation of the rule above stated.

(C.) Underfeed Co. *vs.* American Co., 165 F. R., 65 (566,871, 595,837).

b. A valid patent can not be issued to an inventor for anything described in a former patent to himself if the application therefor was filed after the former patent had been issued.

Matthews *vs.* Flower, cited.
Barnes Co. *vs.* Walworth Co., 60 F. R., 605 (212,346, 233,393).

This is not the rule if the aplication was filed before the former patent had been issued.

Wheeler *vs.* McCormick, Fed. Cases, 17,499.
Fenton Co. *vs.* Office Co., 68 O. G., 1390 (437,833, 450,124).
Anderson *vs.* Collins, 122 F. R., 451.
Badische-Fabrik *vs.* A. Klipstein & Co., 125 F. R., 451.
Hillard *vs.* Fisher Co., 159 F. R., 439 (554,874, 580,281).

*(C.) Copending. (N.) Not copending.

c. Where no proper line is maintained between the claims in the two patents, only one is valid.

(N.) Thomson Elec. Co. *vs.* Western Co., 70 F. R., 69; 73 O. G., 1123 (223,659, 238,315).

(C.) Otis Co. *vs.* Portland Co., 127 F. R., 557 (359,551, 453,955).

(N.) American Co. *vs.* Economy Co., 162 F. R., 684 (433,686, 656,553).

d. A mere colorable variation of the combination claimed in the earlier patent is not sufficient ground upon which to base the grant of a second patent.

(N.) McCreary *vs.* Canal Co., 141 U. S., 467; 57 O. G., 1131 Dicta (125,684, 129,844).

e. A change of direction through which a device operates does not in itself involve invention.

(N.) Fassett *vs.* Mfg. Co., 62 F. R., 404; 64 O. G., 439 (347,338, 377,376).

f. A slight immaterial modification of the structure shown in the earlier patent does not amount to invention.

(N.) Root *vs.* Ry. Co., 42 F. R., 412 (193,757, 224,284).

If, however, the modification makes the device more nearly perfect a valid patent may be granted thereon.

(N.) Gilmore et al. *vs.* Vaughn, 216 F. R., 356 (943,759, 1,029,645).

g. The substitution for an element in the first patent of an element suggested as equivalent thereto in such patent or of an element known to be an equivalent thereto does not amount to invention.

(N.) Swift *vs.* Jenks, 29 F. R., 642 (255,353, 283,931).

(N.) Ex parte Marstellar, 18 Gour., 52-14 (785,562).
(C.) Pieper et al. *vs.* Mfg. Co., 156 F. R., 672—Dieta (704,009, 721,229).

h. Adjustability of an element does not in itself involve invention.

(N.) Doig *vs.* Machine Co., 122 F. R., 460 (276,630, 342,268).

i. Where the difference between the claims of the two patents is due solely to the recitation of function the second patent is invalid.

(C.) Miller *vs.* Eagle Mfg. Co. cited.
McComb *vs.* Brodie, Fed. Cases, 8708.
(N.) Nat'l Co. *vs.* Interchangeable Co., 106 F. R., 693 (361,009, 480,194).
(C.) Western Co. *vs.* Williams-Abbott Co., 108 F. R., 952 (309,617, 394,172).

If, however, the change in function is due to a slight change in construction both patents are valid.

(C.) Western Co. *vs.* Empire Co., 131 F. R., 494 (392,386, 392,387).

j. A patent for an article produced by one process renders a second patent for the same article produced by a different process invalid.

(N.) Reynolds *vs.* Paint Co., 68 F. R., 483 (348,995, 378,520).

k. Patents for the article, the process by which it is made and the machine by which the process is carried out are involved in three classes of decisions.

1. Articles and Process:

When the claims of the later process patent cover nothing more than the necessary or obvious

steps of effecting the article covered by an earlier article patent, the later process patent is void on the ground that the two patents are for the same invention, and the invention resides in the article rather than in the process.

(C.) Mosler Co. *vs.* Mosler & Co., 127 U. S., 353 (281,640, 283,136).
(C.) Oval Co. *vs.* Mfg. Co., 60 F. R., 285 (273,773, 278,828).
Ex parte Simonds, 44 O. G., 445.

A process patent, granted over two years prior to the date of application for a product patent, is a bar thereto.

(N.) In re Griffith, 187 O. G., 517 (580,344).

A comparison of these decisions would appear to show that the process patent becomes a bar if the two-year term has passed between the issuance of the patent and the filing of the product application and is thus viewed only as a printed publication.

2. Machine and Article:

A patent for the machine by which the article is made may or may not render the later article patent invalid according to the line of decisions the court elects to follow. The article patent is held invalid in

(C.) McKay *vs.* Jacknann, 12 F. R., 615 (20,775, 29,562).
(N.) Needle Co. *vs.* Needle Co., 32 F. R., 221 (43,772, 110,594).

While both patents are held valid in

(C.) McKay *vs.* Dibert, 5 F. R., 587, 19 O. G., 1351 (20,775 supra, 29,562).
(N.) Hatch *vs.* Moffitt, 15 F. R., 252 (117,627, 129,338).
(C.) Adrian Co. *vs.* Fence Co., 190 F. R., 195 (755,187, 774,210).

The last decision lays down the rule that where the article is not necessarily made by the machine both patents are valid. It would appear that this rule is a logical one and follows the one suggested above in connection with article and process patents.

3. Machine and Process:

In cases involving a machine patent and a later patent for the process, the weight of opinion appears to be that both patents are valid. As in similar cases the process application must be filed within two years from that date of issue of the machine patent.

The following hold both patents valid:

(C.) McKay *vs.* Dibert, (20,775 supra, 29,561, cited).
(N.) Eastern Co. *vs.* Standard Co., 30 F. R., 63; 41 O. G., 231 (231,642, 258,272).
(N.) Eastern Co. *vs.* Nixon et al., 35 F. R., 752; 45 O. G., 1571 (231,642, 258,272, supra).
(C.) Simonds Co. *vs.* Mfg. Co., 90 F. R., 201 (319,754, 419,292).

l. A single novel element can be made the basis for one patent only and a second patent thereon is invalid.

(N.) Davis Co. *vs.* Elevator Co., 135 F. R., 119 (555,640, 694,534, 694,535).
(N.) Washburn *vs.* Pin Co. (500,640, 517,-084).

m. A patent having been granted for a certain novel element, a later patent for a combination, the novelty of which lies in the substitution of said element for another element in an old combination is invalid.

(N.) Holmes Co. *vs.* Metropolitan Co., 35 F. R., 254 (110,362, 120,874).
(C.) Underwood *vs.* Gerber, 149 U. S., 224; 63 O. G., 1063 (348,072, 348,073).

(C. & N.) Palmer Co. *vs.* Lozier, 90 F. R., 732 (489,714, 493,220; 495,975, 530,224).
(C.) American Co. *vs.* Mfg. Co., 109 F. R., 976 (233,069, 463,569).
(C.) Western Co. *vs.* Telephone Co., 148 U. S., 857 (574,006, 669,708).

n. A patent for a combination of a certain novel element with old elements is void in view of an earlier patent for the same novel element in combination with other old and well-known elements.

(C.) Industrial Co. *vs.* Wilcox Co., 112 F. R., 535 (263,467, 341,790).
(C.) Dey Co. *vs.* Syracuse Co., 152 F. R., 440 (522,784, 524,102).

o. Certain decisions which hold that two patents having for their point of novelty the same element, are both valid, appear to be at variance with the last three rules laid down and are taken up a little more in detail.

(N.) Oahn *vs.* Wong-On, 19 F. R., 424; 27 O. G., 299,
in which the later patent claimed a combination of fewer elements than the earlier patent.

(C.) Palmer *vs.* Brown, 92 F. R., 925,
in which patent 308,981 claimed the special use in a quilting machine of a specific mechanical movement claimed in patent 304,550.

(N.) Ryan *vs.* Newark Co., 96 F. R., 100,
in which patent 251,630 claimed fewer elements than patent 237,586 and also claimed a new function for one of the common elements.

(C.) Spear *vs.* Keystone Co., 131 F. R., 879,
in which patent 399,944 claimed a single element while 413,464 claimed the combination of that element with others to form a complete device.

(C.) Dodge Co. *vs.* New York Co., 159 F. R., 976 (Dicta),

in which patent 688,111 claimed in addition to the novel element of patent 666,960 certain old elements in combination—this is squarely contra to Rule *m* and is based upon the ground that the claims were not co-extensive.

p. An inventive idea may be patented as a design or an as article, but not as both.

(N.) Cary Co. *vs.* Beal., 90 F R., 725.

where article patent 450,753 was granted prior to design patent 28,142.

(N.) Williams Co. *vs.* Neverslip Co., 136 F. R., 210,

where design patent 29,793 was granted prior to article patent 666,583. This last decision may be held to overrule.

(N.) Collender *vs.* Griffith, 2 F. R., 206.

based upon a similar state of facts wherein article patent 145,787 was held valid over design patent 4973 on the ground that the former patent was directed to structure and the latter to appearance.

GENERIC AND SPECIFIC PATENTS.

This class goes beyond the true idea of double patenting, as set forth in the first class, and is included under that subject upon the theory that the later patent if held valid would tend to extend beyond the statutory period, the monopoly to which the inventor is entitled. This theory appears unquestionably to be based upon strict justice and if followed in all cases would remove a great deal of doubt as to the validity of patents and obviate much litigation. The patents falling under this class may easily be divided into three groups according to the order in which the patents were issued, the order of filing being disregarded, as immaterial, except when the question of laches or fraud arises.

1. Where both patents are issued simultaneously. Here there would appear to be no question but that the only decision found correctly holds both patents valid.

> Manhattan Co. *vs.* Helios-Upton Co., 135 F. R., 785.

2. Where the generic patent is issued before the specific patent. Here too the decisions found state what appears to be the only possible conclusion, that both patents are valid.

> Victor Co. *vs.* American Co., 145 F. R., 350 (534,543, 564,586).
> Welsbach Co. *vs.* Cohn, 181 F. R., 122 (638,004, 659,617).
> Horton Co. *vs.* White Co., 213 F. R., 471 (863,120, 886,022).

3. Where the generic patent is issued after the specific patent. Here there is a great conflict of decisions. The courts have followed no fixed precedent but have considered each case independently. The result is therefore a lack of uniformity between the decisions of the same court upon different patents and of different courts upon the same patent.

The decisions in this class may be grouped into two subclasses: Those in which the generic claims of the later patent were held invalid and those in which the same were held valid; and each subclass separately considered.

The first subclass contains the three following decisions:

Sickels *vs.* Falls Co., 4,199, cited:

> In this case the application for the generic patent was not filed until the specific patent had been granted.

Morse Co. *vs.* Link Co., 164 F. R., 331 (736,999, 757,762):

> This decision was based upon a judgment of non-infringement and the suggestion of the court that the generic patent should be held invalid is mere dictum.

Union Co. *vs.* Smith Co., 181 F. R., 966 (470,990, 481,477):

> The patent 470,990 was issued March 15, 1892. One week before the issue of the first patent the application for the second patent was filed and three months thereafter. Claims 37 and 38 were inserted in the second application which the court held were for the same subject-matter as was included in Claims 1 and 2 of the earlier patent, and could have been made in the earlier case. Claims 37 and 38 of the later patent 481,477 were held void. It was suggested that the applicant might secure Claims 37 and 38 by way of a reissue of the earlier patent, 470,990.

The second subclass in which the generic claims of the later patent are held valid includes a large group of decisions in which the application for the generic patent was delayed in the Patent Office by interference, while a later filed application for an improvement thereon becomes a patent. This practice laid down in 1870 has been consistently followed by the courts and as previously stated, has been approved by the Supreme Court. The following decisions have sustained the claims of the later patent on this ground:

Singer *vs.* Braunsdorf, 12,897 Fed. Cases (16,030).
Electrical Co. *vs.* Brush Co., 52 F. R., 130; 61 O. G., 886 (260,653, 337,298).
Thomson Co. *vs.* Elmira Co., 71 F. R., 396; 74 O. G., 144 (397,451, 424,695).
National Co. *vs.* Wheeler Co., 79 F. R., 432; 74 O. G., 1588 (402,610, 447,791).

Thomson Co. *vs.* Ohio Co., 80 F. R., 712; 80 O. G., 654 (397,451, 424,695).
Allington Co. *vs.* Glor, 83 F. R., 1014; 82 O. G., 189 (370,021, 403,362).
Tesla Co. *vs.* Scott, 97 F. R., 588 (445,207, 555,190).
Westinghouse Co. *vs.* Dayton Co., 118 F. R., 502 (416,193, 511,559, 511,560).
Electric Co. *vs.* Buffalo Co., 120 F. R., 672 (337,299).
Westinghouse Co. *vs.* Electric Co., 142 F. R., 545 (416,193, 511,559, 511,560).
Thomson Co. *vs.* Illinois Co., 143 F. R., 534 (397,451, 424,695).
Century Co. *vs.* Westinghouse Co., 191 F. R., 350 (416,193, 511,559, 511,560).

In addition to the above group certain other decisions are included in this subclass for which no common bond can be found. While in each decision the generic patent is sustained the reasons, given or assumed therefor, vary. The decisions are as follows:

McMillin *vs.* Rees, 1 F. R., 722; 17 O. G., 1222 (52,730, 63,917):

> The court in this case construed the broad claim in the second patent so as not to cover or include the structure shown in the first patent.

Graham *vs.* Manufacturing Co., 11 F. R., 138; Graham *vs.* McCormick, 11 F. R., 859:

> These decisions involve the same patents, i. e., 67,041 and 74,342. The generic patent held valid was granted on the second filed application. Originally the broad claims were in the first-filed application but were later transferred to the second application and the former became the limited patent.

Victor Co. *vs.* American Co., 140 F. R., 860 (534,583, 564,586):

> The generic application was the second filed but issued before the specific patent. The court

held that a patent is not invalidated by the fact that the invention claimed was described but not claimed, in an earlier application by the patentee on which a patent was issued after the one in suit.

Washburn Co. *vs.* Beat 'Em All Co., 143 U. S., 275: 58 O. G., 1555 (150,683, 157,124):

> There was no undue delay about six months and the broad claims had been in the first-filed application which became the second patent. The patents are directed to different inventions, the first to a wire stretcher for fences in which the fence invented by applicant is incidentally shown and the second to the fence itself.

Cleveland Co. *vs.* Detroit Co., 131 F. R., 853 (475,401):

> The generic patent was delayed in the Office by reason of an appeal from the examiner's refusal to allow the claims. Although the applicant was responsible for the delay since he had instituted the appeal, the court held the patent valid apparently by analogy with the cases which come under the interference group referred to above.

OFFICE PRACTICE.

The various classes of double patenting having been reviewed in the light of the decisions wherein two patents are involved, the manner in which applications that may involve this question should be handled in the Patent Office is now to be considered.

1. There is no limit to the number of applications an inventor may file and keep pending in the Office showing and describing the same invention. If the claims overlap the Examiner should call the applicant's attention to the fact but take no further action until one application is in the issue or patented. When such a condition arises that application or patent may be used as a ground for rejecting overlapping claims or

claims for matter not patentably allowable over that claimed in the allowed application or patent. The copending applications must be either restricted or abandoned.

Ex parte Langlois, 14 O. G., 84.
Ex parte Gaboury, 37 O. G., 217.
Ex parte Feister, 53 O. G., 1089.
Ex parte Cahill, 63 O. G., 1815.

2. The second class of cases laid down by Commissioner Mitchell in Ex parte Mullen and Mullen, i. e., where there is a proper line between the claims of the application, the matter of which may be covered by the same or different patents, emphasizes the practice laid down in:

Ex parte Long, 25 O. G., 1189.
Ex parte Rohn, 25 O. G., 1190.
Marvin *vs.* Lillie, 27 O. G., 299.
Hill *vs.* Comm'r of Patents, 4 Mackey, 266; 33 O. G., 757.

The requirement that matter not claimed in the original application must be claimed in an application copending therewith or in a reissue is based upon the theory that the grant of a patent constitutes a dedication to the public of the matter embraced or described and not claimed therein, which dedication can only be rebutted in the ways referred to above.

The decisions in Ex parte Derby, 26 O. G., 1208, and Vermont Co. *vs.* Marble, Comm'r, cited,

which hold such matter claimable in a new application if filed within two years after the grant of the patent, as well as the decisions in:

Ex parte Cottrell, 9 O. G., 495,
Ex parte Arkell, 9 O. G., 1111, and
Ex parte Roberts, 40 O. G., 573,

which hold that such matter can not be claimed in a copending application but only in a reissue

of the patent are discordant notes finally silenced by Mullen and Mullen.

Subsequent to Mullen and Mullen, the practice has followed the rules laid down in

Ex parte Wellman, 86 O. G., 1986,
Ex parte Osborn, 92 O. G., 1797, and
Ex parte Davidson, 93 O. G., 191,

which hold that a rejection upon this ground is appealable to the Board of Examiners-in-Chief.

3. Where there is no patentable line between two sets of claims only one patent should be allowed.

Durham *vs.* Seymour, 6 App. D. C., 78.

Closet supported by floor rather than by wall:

Ex parte Creveling, 25 App. D. C., 530.

Claims in process case differ from those in machine case merely by use of "method" instead of "means."

Ex parte Holt, 29 O. G., 171.
Ex parte Barclay, 21 Cour., 56-23, 1909.

No line between copending applications.

Ex parte Ranson, 39 O. G., 119.
Ex parte Edison, 54 O. G., 263.

Later-filed case without proper line of division.

Ex parte Parker, 19 Cour., 3-10, 1907.

Mere substitution of one well-known form of gearing for another.

Ex parte Richards, 19 Cour., 40-23, 1907.

Element *per se* not patentable over combination depending thereon for novelty.

Ex parte Schoen, 20 Cour., 24-19, 1908.

Gear wheel not patentable over car wheel made by same process.

4. Claims in a patent can not be inserted in an application by the same inventor.

Ex parte Barrett, 56 O. G., 930.

5. Where broad claims have been included in a patent, overlapping broad claims can not be inserted in an application by the same inventor although the applications were copending. The fact that the claims were inserted upon the suggestion of the Examiner has no bearing upon this holding.

Jones *vs.* Larter, 92 O. G., 383.

6. The above decision leads to a discussion of the practice to be followed when the question arises as to the treatment of a generic application, the claims of which dominate a specific patent granted to the same inventor upon a copending application. As indicated above in connection with generic and specific patents there are decisions both pro and con.

The following hold that the specific patent is a bar to the allowance of the generic application:

Ex parte Atwood, 1869, C. D., 98.
Ex parte Lowe, 1870, C. D., 39.
Gold *vs.* Gold, 187 F. R., 273.

In the first and third cases the applications were not copending; in the second case the claims in the application were so broad as to amount to claims for the principle of the machine already covered by the patent.

The specific patent is held no bar to the grant of the generic patent in,

Ex parte Emerson, 17 O. G., 1451; and
Ex parte Edison, 49 O. G., 1691.

In the first case the inventor was permitted to insert broad claims in an application after the specific application had become a patent on the ground that an inventor can not be required to claim in a single patent or a reissue thereof, each invention shown and described. This decision would appear to be bad law under the practice laid down in Mullen and Mullen. In the second case the generic application was delayed in the Office through interference, although filed prior to the application on which the specific patent was granted, and hence comes under the exception allowed in such cases as approved by the Supreme Court. The Commissioner in deciding this case took occasion to state that the delay was not the fault of the inventor but was due either to an inherent defect in the patent system or to a defect in the administration of the system.

An unpublished decision by Commissioner Spear, found in the file of patent 209,006 to W. G. A., Bonville covers a situation which seldom arises in connection with this question. The application for that patent which contained generic claims was filed in 1871 and later assigned. A later application by the same inventor for an improvement thereon was filed in 1873 and matured into patent 199,779 which was unassigned. After the grant of this patent the earlier application delayed by interference was rejected thereon since the patent showed the structure claimed in the application. The Commissioner reversed the Examiner and allowed the claims on the ground that such practice would result in unjustly depriving the assignee of his rights.

None of the above decisions squarely decides whether or not in the ordinary case the grant of a specific patent on one species constitutes a bar to the grant of a patent upon a copending application showing structure not covered by the claims of the specific patent but containing generic claims readable upon the form shown in the

patent. The Board of Examiners-in-Chief held that W. S. Elliott was entitled to broad claims in an application filed June 27, 1910, although an application filed February 10, 1910, had become a patent October 25, 1910, with specific claims. This holding was based upon the decisions in,

Ex parte Edison, 49 O. G., 1691; and
Thomson Co. *vs.* Ohio Co., cited.

In each of these cases the generic patent was first applied for and was delayed by interference in the Office while a later application for an improvement thereon became a patent. It would seem, therefore, that the conditions were not analogous. It may be of interest to note here that the courts have never definitely decided just what rights the public has to an expired specific patent which is dominated by an unexpired generic patent to the same party. No cases have been found in which the validity of the patent was decided on this point, although several courts have discussed the subject academically and reached different conclusions. In Thomson Houston Co. *vs.* Ohio Brass Co., the court, by way of dicta, stated that apparently the public is not entitled to the subject-matter of the specific patent until the later generic patent had expired, while in Thomson Houston Co. *vs.* Illinois Co., 113 F. R., 531, a motion for preliminary injunction on the specific patent was refused on the ground that the alleged infringing structure was the same as that disclosed in the expired specific patent, which the court seemed to assume was free to the public, although embraced by the claims of the unexpired generic patent, and also on the ground of implied license. The Circuit Court of Appeals (152 F. R., 632) affirmed this decision on the ground of implied license alone.

A careful review of the foregoing authorities would indicate that, where there are two or more copending applications disclosing the same generic invention, the generic claims, wherever practicable, should be in the first application filed and should be the first patented unless delayed in the office by reason of interference. If the generic claims are placed in a later-filed application,

such later-filed application must be the first one patented (see Victor Co. *vs.* American Co., cited). This, as well as other departures from the rule set forth above, and apparently sustained by the courts in the cases cited, should not be sanctioned by the Office except upon a showing of good and sufficient reasons. For, as stated by Commissioner Fisher, in Ex parte Atwood (cited): "It must be remembered that when the patent has been granted, and its validity has been called in question, a court may so far respect the action of the Commissioner, and the grant of the Government, as to adopt a rule, to save and sustain the patent, which it would be very unwise and unsafe to adopt as the uniform practice in granting patents." Should the above rule be consistently followed, it would eliminate at least one factor in the problem of Double Patenting without sacrificing any of the rights of the inventor.

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Practice in Cases Involving Division.

A paper read December 14, 1916, before the Examining Corps of the United States Patent Office

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Practice in Cases Involving Division

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Although the practice in cases where the question of division is to be determined is rather simple and for the most part well settled, it seems well to gather into one paper the decisions touching that practice. It is not the purpose of this paper to indicate the principles which determine when division is properly required. It is, however, proposed to trace the course followed as an application, which presents the question of division, goes through the Office.

The first step in the treatment of such an application is the Examiner's requirement for division. Every action of this kind is counted and reported in the week's work under Order 2125. Rule 42 requires that, if the independence of the inventions be clear, the requirement be made and met before any action on the merits. Even this elementary principle has not always been the practice, for in some early cases the Commissioner criticized the Examiner for not making an examination at first where the case would have been as easy to treat in that way. (*Ex parte* Sanders, 1878, C. D., 66; *ex parte* Knott, 1875, C. D., 96.) The Office can not undertake to examine more than one invention in a single application, consequently the case must be restricted to one invention or be found to present but one before any examination should be undertaken. (*Ex parte* Weston. 1911, C. D., 218, and cases cited therein.)

Cases presenting a generic claim together with claims to different species form no exception (*Ex parte* Worden, 1902, C. D., 176), but under the older decisions an exception to this rule was made in the case of applications presenting claims to each of two inventions together

with claims to the alleged combination. Such cases were treated by rejecting the latter claims on the ground of aggregation without taking action on the merits of either separate invention. Then when the combination claims had been amended so as to be directed to one or the other invention the requirement for division would be made. This practice was changed in *ex parte* Mansfield and Hayes, 1902, C. D., 94, because it involved piece-meal action on the merits. The requirement for division should be made first and should indicate whether the combination claims may be included in the same case with one of the separate inventions or constitute a third group which if patentable at all must be embodied in a separate patent. The statement of the practice made in this decision is dicta, because the Commissioner reversed the Examiner on the ground that the application under consideration did not present independent inventions, but the practice has followed that dicta and has been sustained in later decisions. See *ex parte* Crain, 1907, C. D., 18, where the Commissioner pointed out that a requirement for division accompanied by a statement that certain claims are for aggregations is proper practice.

Where there are only two groups, namely, the combination claims and claims to a sub-combination and the Examiner is of the opinion that the combination claims are of the sort condemned under such decisions as *in re* Hawley, he should not require division but act on the merits of all the claims. (*Ex parte* Mumford, 1914, C. D., 84.)

If the requirement for division is not made in the first action the applicant, receiving action on the merits of several inventions, is benefited and not injured by the tardiness of the requirement. Consequently, that division was not required in the first action, is no reason for not making the requirement later. Rule 42 expressly provides that it may be made at any time before final action. (*Ex parte* Almimana, 1902, C. D., 293; *ex parte* Ramsey, 1909, C. D., 157.) The delay may arise through oversight, the Examiner failing to perceive that two independent inventions are involved, and it may be caused by the condition of the case as first presented, the claims being too indefinite to indicate

whether they cover independent inventions or not. In the latter case the proper practice is to first treat the claims until they are clear enough to make the question of division definite. (*Ex parte* Mayall, 1873, C. D., 134.) Neither of these circumstances goes to prove the dependence of the inventions and it has been repeatedly held that a requirement for division will not be set aside on account of the time when it was made. (*Ex parte* Lewis, 1904, C. D., 16; *ex parte* Benke, 1904, C. D., 63.)

When the claims had been stated to be allowable, but later, because of an amendment to Rule 41, division was required, the allowance of the claims was held no ground for waiving the requirement. (*Ex parte* Farquhar *et al.*, 1899, C. D., 205.)

Such tardy requirements are a cause of annoyance to attorneys and applicants and every effort should be made to make the first action completely cover the question of division whenever possible. Particularly annoying is a requirement for further division when the application has been once divided. Yet when the need for such further division arises the fact that it is a second requirement will not cause it to be set aside. (*Ex parte* Benke, *supra*; *ex parte* McHale, 1908, C. D., 185.)

The commonest cause of such a second requirement is failure to consult the Examiner who must handle the case after division is made. Accordingly when the independent inventions presented in one application are examinable in different divisions of the Office, the Examiner making the requirement for division should refer the case to the Examiner who has the class to which the divided case might belong, asking for a report. The Examiner to whom the case is thus referred will then indicate what, if any, lines of further division should be made. (*Ex parte* Brown, 1911, C. D., 111.)

A delay in making the requirement for division may under some circumstances be interpreted as indicating the existence of a doubt, and if a doubt exists it should be resolved in favor of the applicant. Thus, when a case has been allowed without requiring division and becomes forfeited, the requirement will not be sustained in the renewed application except in a very clear case. Even under these circumstances when the inventions are

clearly separate and independent, as where the articles are separately manufactured and sold, division will be insisted upon. (*Ex parte* Uhlig, 1903, C. D., 300.)

It is positively too late to require division when a patent is being reissued. (*Ex parte* Van Nostrand, 1913, C. D., 215.) This is because the Office is without authority either to require an extra fee or to issue a second patent without a fee. This reasoning would seem to indicate that the time when the right of the Office to raise the question of division terminates is upon payment of the final fee. The writer has not found, however, any case in which an attempt was made to withdraw a case from issue after payment of the final fee for the purpose of requiring division. The most delayed requirement for division which has been sustained of which the writer is aware occurred after an appeal on the merits and a decision thereon by the Commissioner. The requirement in that case was found to be in order because Rule 64 stated that matters of form will be insisted on only in cases presenting patentable subject-matter. (*Ex parte* Olan, 1897, C. D., 24.) The reasoning would not hold now, since not only has the rule been changed, but division is no longer regarded as a matter of form.

Although the Office may not require division in a reissue application the applicant may of his own motion present his reissue application in several parts. When one of these parts is ready for issue it will be held to await the termination of the prosecution of the others except when the Commissioner shall otherwise order (Rule 89). Consequently the Examiner should decline to act on a division of a reissue application filed after the parent reissue application has been allowed. (*Ex parte* Bayles, 1912, C. D., 76.)

At one time a somewhat similar practice required that all divisional applications should issue simultaneously but this was changed by *ex parte* Drawbaugh, 1893, C. D., 85.

At whatever time the requirement for division is made it should be definitly and explicitly stated. The claims belonging to each group should be named by number and whether any two of the groups may be prosecuted in one application should be clearly indicated. The reasons

why division is necessary should be stated so fully and completely that if applicant should appeal to the Board the Examiner's statement need make no point which applicant has not before had an opportunity to consider.

If the reasons are obvious they need not be stated. (*Ex parte* Reid, 1901, C. D., 123.) Merely because certain claims are drawn to a process and others to the apparatus used in such process is not enough always to support a requirement for division. Consequently in such cases the Examiner should point out why the particular process is a distinct invention from the apparatus. (*Ex parte* Ament, 1905, C. D., 166.) If the reasons for division can not otherwise be made clear, the Examiner should "point out the specific language in the respective claims which restrict them" to independent inventions. (*Ex parte* Ljungstrom, 1905, C. D., 541.) It is not necessary to cite references but, if references are needed to make the position of the Examiner clear or as evidence that the inventions have become distinct and separate fields of inventive effort, they should be cited. (*Ex parte* Reid, *supra*.) Such a citation of references is rarely needed and is a different thing both from the usual citations to show the state of the art and from an action on the merits. References cited to show that the requirement for division is properly made may not be the nearest references and may not afford the best guide in making an election, consequently the Examiner should in addition thereto cite whatever is closer of which he knows or which he can find by a cursory examination. (*Ex parte* Stearnes, 1890, C. D., 49.) If the reasons are clearly stated by the Examiner his action will not be regarded as improper because applicant thinks the reasons insufficient. (*Ex parte* Wallace, 1905, C. D., 411.)

If in the same action with the requirement for division the merits be treated, the Office gives a search and report on each of several inventions which is more than applicant is entitled to. Other applicants are thus kept waiting and the manifest unfairness of this is one reason why an action on the merits at the same time as a requirement for division is unusual. It is also ordinarily undesirable because it so frequently results in no response to the requirement, applicant meeting the rejec-

tions and ignoring the question of division. Even if applicant waits the full year before taking this action his case does not become abandoned. (*Ex parte* Wright and Stebbins, 1899, C. D., 153.) Consequently, premature treatment of the merits may cause two years' delay in the actual disposal of the case.

If, on the other hand, the Examiner for any reason gives an action on the merits it is not improper practice. He should, however, act on all of the claims and not on only part of them. Moreover he should make very clear that all of the claims have been treated and not leave some unmentioned. If this course is not followed the rejection made at the same time as the requirement for division will not support a final rejection in the next action. (*Ex parte* Goldman, 1902, C. D., 238; *ex parte* Lantzke, 1910, C. D., 106.)

Even when no action is made on the merits applicant should be given whatever information the Office can readily supply which will assist him in making his election. This is usually done by citing several patents to show the state of the art. Applicant does not have a right to such citations. They are given as a courtesy and do not represent the result of a careful search such as precedes an action on the merits. It is sufficient that the Examiner cite such art as he knows of or can readily find. (*Ex parte* MacKaye, 1903, C. D., 112.) If the Examiner knows of no references it is not sufficient merely to state that fact. He should make some search, although not an exhaustive one, and whatever references can be readily found should be cited and his letter should show that such a search was made. (*Ex parte* Moorhead, 1908, C. D., 48.) Yet where the Examiner stated reasons why the claims are not patentable without making citations it was presumed that he knew of none and a petition that he furnish further information was denied. (*Ex parte* Albert, 1901, C. D., 66.)

The cursory search and the resulting citations or statement that no references are found should be made for each of the groups of claims even when the Examiner contends that the several inventions are so numerous and unrelated as to make their presentation in one case an obviously incorrect practice. (*Ex parte* Bratt, 1910,

C. D., 46.) Without this service applicant can not make an intelligent election. Yet the failure of the Examiner to cite the state of the art as to one of the several inventions will not permit a shifting after election because references then cited show the elected claims are not patentable. (*Ex parte* Randall and Luck, 1901, C. D., 47.)

Applicant's election is not facilitated however by an extended action on the form of all the claims or of all parts of the description and drawing. When all but one group of claims have been canceled, the parts of the application corresponding to the canceled claims should also be removed from the case. It would, therefore, seem that the work of criticizing such parts is outside of that which the Office ought to undertake in return for one fee and is frequently wasted. It is not unusual consequently to defer action on formal matters also until the division is accomplished. Yet this is not in accordance with Rule 64 as usually interpreted. (*Ex parte* Blakeman, 1902, C. D., 25.) However, the writer has not found any decision covering this point.

Another interesting question on which there seems to be no decision arises in those cases in which the Examiner omits to make the cursory search. It is usual for the applicant to then reply to the requirement for division by requesting information as to the state of the art. If the applicant should wait until the end of the year before making such request would he then have a second year in which to make his response to the requirement?

Applicant's response must either elect one of the inventions, or must tranverse the Examiner's allegation that the inventions are independent. Any action which fails to accomplish one of these two results is not such as the condition of the case requires. Election is usually made by canceling all the groups of claims except the one representing the elected invention. When this is done the drawings and description ought to be restricted to correspond, but if applicant fails to so restrict them that of itself is not regarded as a failure to make proper response.

It is such a failure, however, to remove only the claims to some of the inventions and not all claims to all but

one invention. Thus when applicant had been required to divide into eight groups and in response canceled one group only and took no other action within the year his case was held abandoned. (*Ex parte* Noef, 1901, C. D., 230.) Not even the fact that applicant in good faith believed he had complied completely will save the case if the requirement and the lack of complete action in response are both clear. (*Ex parte* Pietzner, 1903, C. D., 142.)

An action which fails to cancel all but one group will not be unresponsive if reasons are presented why the requirement for division between the remaining groups is not good. Thus applicant may comply as to one line of division and traverse the requirement as to another line or request fuller statement of the second line without being unresponsive. (*Ex parte* Noef, 1902, C. D., 325.) Obviously applicant is entitled to have his arguments heard in this as in all matters affecting his interests and to have the question reconsidered in the light of such arguments. A refusal to divide will not of itself work an abandonment, because applicant is entitled to a reconsideration and a second action under Rule 67. In fact, an appeal from the requirement can not be considered until after such reconsideration. (*Ex parte* Lovejoy, 1901, C. D., 52.) But the refusal to divide must be accompanied by a statement of the reasons why the application should not be divided. The mere statement that division is not warranted is not enough. (*Ex parte* Henri, Helbronner and Recklinghausen, 1912, C. D., 201.) When the Examiner states no reasons in connection with the requirement and applicant makes no reply except a request for reconsideration without argument neither has fulfilled his duty. (*Ex parte* Tyson, 1902, C. D., 176.)

It has even been held that a request for reconsideration in a case where there was no possible room for doubt was an action obviously intended to prolong the prosecution of the case and therefore would not prevent abandonment. (*Ex parte* Bassett, 1902, C. D., 87.) It seems, however, doubtful whether another case can arise with circumstances showing so plainly that the action could not have been expected to advance the case. The

same Commissioner only six months later refused to follow *ex parte* Bassett in a clear case of claims to different species. The later decision is based on the ground that "there may well be a difference of opinion as to whether certain claims are limited to one species" and this is properly subject to reconsideration if applicant traverse the Examiner's position.

When the requirement for division is traversed and upon reconsideration the Examiner adheres to his former opinion he should refer the matter to the Law Examiner under Order 2115 and, if the Law Examiner approves, make the requirement final. Like any final action this should not be done when applicant has not had an opportunity to be heard, but a mere variation in the form of the requirement which does not alter the questions involved will not prevent making it final. Thus where the Examiner in stating the several groups into which division was required, failed to mention one claim but it was perfectly obvious with which group this claim belonged so that the failure to mention it did not act to the prejudice of the applicant, it was held that the Examiner properly made his requirement final in his next action. Applicant's contention that the requirement as to this one claim did not receive reconsideration was founded upon empty technicality. There was no new question to be considered in regard to this claim and so applicant had had his opportunity to present arguments on the questions involved. (*Ex parte* Tuttle, 1905, C. D., 274.)

That applicant does not make use of the opportunity to present the reasons for waiving the requirement for division will not prevent a final action thereon. So when the Examiner acted on the merits of the claims at the same time that he required division and the applicant responded with amendments to avoid the references and a merely perfunctory argument on the requirement it was held proper practice to make the requirement final. (*Ex parte* Chamberlain, 1902, C. D., 354.)

The requirement for division having been made final and applicant still wishing to traverse it, his next step is to appeal to the Board. Formerly this was not done but instead there was a petition to the Commissioner on the

theory that the question of division was not one of merits but of form. The right to an appeal was settled in Steinmetz *vs.* Allen, 1904, C. D., 703. The applicant in this case was required to divide under Rule 41 which required that process and apparatus be always separated. It was because the validity of this rule was attacked that the United States Supreme Court took jurisdiction. The rule was found to exceed the Commissioner's authority because it left no discretion. It is interesting to note in this connection that Commissioner Duell when he announced that it was proposed to amend Rule 41, stated the express ground that "this question should be removed from the domain of the discretion of the Office." (*Ex parte* Boucher, 1899, C. D., 133, see page 39.) The court in Steinmetz *vs.* Allen, thought it perfectly conceivable that there could be a case in which the process and apparatus were not separate inventions. The holding that old Rule 41 was invalid does not mean that division may not be required in cases where the two inventions are independent and even in cases of process and apparatus division should be required when it is proper. The requirement being subject to review by the Board. (*Ex parte* Frasch, 1904, C. D., 104.)

The court's conclusion that a requirement for division is in effect a rejection from which there is an appeal to the Board is based on an assumption that there was unity of invention in the case before it. Such assumption was made because the Commissioner did not deny such unity. It will not follow, however, that the change in Office practice resulted from accidental circumstances in the case before the court because the refusal of a well founded right of joinder would give rise to the same procedure as the assertion of a poorly founded one.

Whether the result of accidental circumstances or not Steinmetz *vs.* Allen has established the rule that requirements for division are appealable (*Ex parte* Emerson, 1904, C. D., 118; *ex parte* Crain, 1907, C. D., 18), and this conclusion has been confirmed by the Court of Appeals. (*In re* Frasch, 1906, C. D., 648.) This practice has been carried to the point where an applicant can not obtain a review by petition of such a requirement (*Ex parte* Strimban, 1912, C. D., 195), even by expressly

waiving his right to an appeal. (*Ex parte* Mumford, 1914, C. D., 81.)

Although the change in practice resulted from a case involving process and apparatus it applies to any case involving division such as one presenting two species. (*Ex parte* Creamer and Knowlton, 1904, C. D., 295.)

A petition has, however, been entertained which raised the question whether the Examiner had a right to require division or was estopped. In making this decision, however, the Commissioner explicitly stated that whether or not division was correctly required could be determined only by appeal. (*Ex parte* McHale, 1905, C. D., 185.)

The question of the independence of the inventions must be settled by appeal and not by petition even when it arises in some other way than by a requirement for division, as, for example, when applicant is required to cancel claims which constitute an attempt to shift after having made an election. (*Ex parte* Barnes, 1905, C. D., 69.)

The appeal to the Board covers all matters which go to the merits of the question of division. Thus, where a question of new matter was germane to the question of division, the Commissioner refused to decide on petition the question of new matter. (*Ex parte* Faden and Berman, 1910, C. D., 87.)

From the Board an appeal on the requirement for division may be taken to the Commissioner (*Ex parte* Weston, 1911, C. D., 218), and from the Commissioner to the Court of Appeals. (*In re* Frasch, 1906, C. D., 618.) The court, however, will not disturb the finding of the Commissioner on the question of division except in cases of clear abuse. (Steinmetz *vs.* Allen, 1904, C. D., 703, see page 712.)

A petition under the old practice could obtain a review of the question for division even though it showed that the requirement was prematurely made final if the petitioner requested such review. (*Ex parte* Pickles, 1904, C. D., 75.) Now it would not be possible to question the propriety of making the requirement final and at the same time determine the necessity for division because the two matters are decided by different tribunals.

When the requirement for division has been made final applicant must either comply or appeal. If he attempts to take any other action his case is likely to become abandoned. (*Ex parte* Wallace, 1906, C. D., 461.) If he decides to comply he should cancel all claims and all disclosure not related to the elected invention. It is within the province of the applicant to decide which group of claims he will retain. Consequently the examiner may not require that specified claims be canceled unless applicant has already made an election. (*Ex parte* Butcher, 1904, C. D., 60.) In fact the Examiner may not make the selection when requested to do so. (*Ex parte* Tuttle, 1904, C. D., 537.)

It is quite usual to cancel the claims but retain drawings and description pertaining to the inventions not elected. The requirement that such matter be removed should be made in the Examiner's action responding to the cancellation of the claims. In a case of process and product applicant may not retain the non-elected matter on the ground that it is necessary to the understanding of the claimed invention because it discloses a good way of making the claimed article. The process being a different invention from the product its description in a patent for the product is prolixity. (*Ex parte* King, 1902, C. D., 158; *ex parte* Simonds, 1888, C. D., 89.)

When, however, the division is between one species and another and a generic claim remains in the case, applicant may retain all the figures on which such claim reads even though one species differs from the other by including elements which, if claimed, would cause the case to be differently classified. (*Ex parte* Garland, 1903, C. D., 414.)

The Examiner should particularly scrutinize the statement of invention because as originally drawn it is almost certain to be directed to more than the elected invention but the applicant seldom changes it when he divides. The title also frequently needs alteration as a result of division, yet seldom receives attention. None of these matters is, however, regarded as so essential a part of the act of dividing that the failure to attend to them constitutes an unresponsive action. Until the Examiner states the requirement for additional changes

all that the applicant needs to do is to cancel all claims not inconsistent with his election.

Such cancellation of claims is the usual way of indicating which invention is elected. Applicant may, however, before the question of division is determined indicate by express statement which group of claims is elected and have an action on the merits of that group. The other claims then merely remain in the case until the merits of the elected group are determined or their rejection has become final. Then both the question of division and the merits of the elected claims can be appealed to the Board in one action. (*Ex parte* King, 1913, C. D., 105.) This does not reverse entirely such decisions as *ex parte* Pickles, 1904, C. D., 126; because, although it permits the claims to remain in the case it does not require an action on the merits of more than one group. Action on the merits will not be made before division even though an appeal is to be had on the requirement (*ex parte* Snyder, 1904, C. D., 242) except under the practice indicated in *ex parte* King.

Applicant having indicated his election without acquiescing in the requirement for division will not be required to eliminate from the drawing and description the non-elected devices. Where the elected invention is examinable in a different division the case should be transferred in spite of the presence therein of claims and disclosure indicating a different classification. Such cases should, however, be called to the attention of the Commissioner for special directions. (*Ex parte* Stemple, 1913, C. D., 262.)

Election may be made also by claiming but one invention in the case as first filed. Later attempts to claim others should be met by requiring such claims to be canceled. (*Ex parte* Moorhead, 1911, C. D., 242.) Whether the requirement that such claims be canceled be correct depends on whether the Examiner's conclusion that the case presents two inventions is right, consequently, the requirement should be preceded by a consultation with the Law Examiner under Order 2215 and from the repetition of such a requirement an appeal lies to the Board. (*Ex parte* Lawley, 1904, C. D., 539.) If the original claims are generic there is no elec-

tion and applicant may later make narrower claims to whichever species he desires. (*Ex parte* Plimpton, 1902, C. D., 150.) In the consideration of the question whether the claims first presented were specific to one of the several inventions, applicant is to be given the benefit of every reasonable doubt, (*Ex parte* Cram, 1903, C. D., 1), but claims specific to one species constitute an election even though the case also contains claims broad enough to read on the other species. (*Ex parte* Maddux, 1903, C. D., 312.)

Again, election may be made by canceling claims to all inventions except one where no requirement for division has been made. The effect of such election is, however, as if made in response to a requirement and applicant may not later shift if the inventions are independent. (*Ex parte* Barnes, 1905, C. D., 69.)

An election, express or constructive, is the only way of obtaining an action on the merits before the question of division is disposed of but other ways have been attempted. One way consisted in canceling all but one group of claims and at the same time stating the intention to reinsert the canceled claims after action on the merits had been had. The Examiner met this by requiring that if the canceled claims were to be reinserted at all it be done at once. It was held that this requirement was proper but that the Examiner would also have been justified in regarding the action as an election, thus making it impossible ever to reinsert such claims. (*Ex parte* Scott and Deats, 1909, C. D., 182.)

Such a reinsertion will not be permitted to save an additional appeal. (*Ex parte* Fritts, 1903, C. D., 286.) Even where the applicant has been misled by the Examiner mistakenly stating that the claims of one group are allowable, he may not shift after election. (*Ex parte* Noble, 1898, C. D., 149.) When the Examiner wrongly required that certain claims be canceled when he should have given applicant a chance to elect and applicant did cancel the claims they may not afterward be presented in that application. (*Ex parte* Johnston, 1887, C. D., 64.) In the same way claims canceled by an associate attorney in response to a requirement for division may not be reinserted even though the principal's

judgment differ from the associate's. (*Ex parte* Clausen, 1899, C. D., 183.)

The reason why such reinsertion is not permissible is because in prosecuting one group of claims applicant receives from the Office all the service to which he is entitled in return for one fee. Consequently acts on his part which cause the Office to render such service, rather than acts which indicate his intent, determine whether election has been made. Thus to present claims to but one invention as the case is first filed will preclude the prosecution of claims to another invention in that case. If on the other hand claims are suggested under Rule 96 after the requirement for division has been made but before it has been complied with, to make the suggested claims and prosecute the interference is not to make an election. (*Ex parte* Burk, 1912, C. D., 338.) The interfering claims may even be admitted after an election although to a slightly different species (*Ex parte* Priebe, 1915, C. D., 39) and applicant should be required after the interference to again limit himself to one species but when the interfering invention differs widely from the elected one and the application has been allowed, insertion of such claims is refused. (*Ex parte* Stimson, 226 O. G., 699.) On principle it should constitute an election if applicant presented other claims to the interfering invention, either before the declaration of the interference or under Rule 109, but no such distinction is found in the decisions.

When applicant through mistake has made an undesirable election; he can, if he act before the Office treats the elected claims on the merits, shift to the other invention. (*Ex parte* Zabel, 1888, C. D., 35.) This curious result follows necessarily from the principle that the examination of one group of claims is what prevents a shifting to a second group.

Another rather surprising result comes from the same principle. If applicant's case originally presented three inventions A, B, and C, and in response to the requirement for division he canceled the claims to C he is not estopped to elect C when the requirement for division between A and B is repeated. As he never presented claims to a single invention he received no action on the

merits and consequently the Office has not rendered him service in return for his fee. He may therefore apply that fee to payment for the examination of claims to invention C. (*Ex parte* Maxim, 1888, C. D., 26.) A later decision, however (*ex parte* Moorhead, 1911, C. D., 242) holds that when applicant cancels one group of claims in response to a requirement for division he can not thereafter prosecute claims for that subject-matter in that application. There is also an old decision (*ex parte* Wharton, 1887, C. D., 88) which refuses the right to shift after no single invention had been elected but in that case the proposed new claims were to new matter.

The same principle gives rise to another line of cases that permits an apparent shifting of ground. An applicant sometimes insists on prosecuting his claims in the form of process claims when his case presents no true process but merely an article or perhaps a machine. When applicant has become convinced of his error he may present claims in the proper form even though it be after appeal and the claims are made in response to a recommendation by the Commissioner. (*Ex parte* Trevette, 1901, C. D., 170.) But if there is a genuine method in applicant's case in addition to the machine the prosecution of the method claims constitutes an election and applicant may not shift therefrom. (*Ex parte* Feld, 1904, C. D., 376.)

An attempt to shift after an election is not such an action as the state of the case requires and will not prevent abandonment. (*Ex parte* Stroh, 1912, C. D., 208.) It has been regarded, however, as an error which may be remedied by promptly presenting claims to the elected invention, particularly where the fact of shifting is not obvious. (*Ex parte* McGennis, 1902, C. D., 422.) Also, if the Examiner overlooks applicant's change of ground and acts on the substituted claims there is no abandonment. (Meden *vs.* Curtis, 1905, C. D., 272.) When the oversight is discovered, however, the applicant will be confined to the elected invention.

To work an abandonment the attempt to shift must make no real progress in the prosecution of the case. Thus, where applicant rewrote and otherwise responded concerning a large number of claims to the elected inven-

tion and inserted one claim to a different invention it was held that the Examiner should treat the elected claims and require cancelation of the other without holding the case abandoned. (*Ex parte* Gally, 1908, C. D., 80.)

The proper treatment of an amendment presenting claims to an invention other than the elected one is to enter it and require that such claims be canceled. (*Ex parte* Selle, 1904, C. D., 221.) The older practice of refusing to enter the amendment became incorrect when Steinmetz *vs.* Allen settled that such questions should be reviewed by the Board. Even under the old practice if the amendment was (improperly) entered the applicant had an appeal to the Board from rejection on the ground of election. (*Ex parte* Bailey, 1890, C. D., 123.) The claims should not receive an action on their merits and should not be rejected and applicant should not be given a second chance to elect. The essence of the distinction betwen a rejection and a requirement that the claims be canceled is pointed out in *ex parte* Miller, 1905, C. D., 228. The requirement that claims be canceled under such circumstances is not reviewed on petition (*ex parte* Weaver, 1912, C. D., 80) and the same is true of a requirement that a claim be canceled to maintain a line of division between copending cases. (*Ex parte* Pope, 1912, C. D., 141.) When one of the copending cases is in interference it is particularly important that a clean line be kept between them. (Burchartz *vs.* Nolan *et al. vs.* Christiansen, 1912, C. D., 196.)

The requirement that a claim be canceled can not be met by adding an introductory clause to bring it into the same class as the elected claims because an introductory clause adds nothing to the claim. (*Ex parte* Gally, 1903, C. D., 480.)

It would seem that the question for the Board to decide upon an appeal from a requirement that claims be canceled is whether the claims are not to the elected invention, but *ex parte* Gally seems to indicate that a review of the correctness of the requirement for division may be obtained by reinserting the canceled claims. This would seem, however, to be incorrect because applicant having once accepted the Examiner's position that the groups of claims are to independent

inventions it would seem that this question had become *res adjudicata* as truly as if the decision were by the Board.

Possibly a review of the correctness of the requirement for division could be obtained by inserting in a divisional case claims from the parent case. *Ex parte* Ayers, 1915, C. D., 34, which indicates that when a case contains the statement that it is a division of a parent case it may be so amended as to make that statement correct, has been interpreted by certain high officials of the Office as indicating that anything contained in the parent case may be inserted in the divisional case. If *claims* were thus inserted and this interpretation is correct the requirement that they be canceled would automatically cause a reconsideration of the propriety of the original requirement for division.

The doctrine of *res adjudicata* applies only to the question actually raised and so when a requirement for division has been sustained, that act of the Board will not prevent a requirement for further division from being made. (*Ex parte* McHale, 1908, C. D., 185.) Such belated requirement should of course, be avoided whenever possible, as it adds to the annoyance which attorneys always feel when division is required.

This dislike for the requirement for division has given rise to many attempts to avoid it beside the straightforward ways of election and appeal. The most common form of such an attempt is the presentation of aggregation claims. Thus applicant having presented claims to A and claims to B and being required to divide, responds by amending the claims to B so that they are claims to A plus B. In the earliest published decision dealing with a case of this sort (*ex parte* Franklin, 1873, C. D., 116) the Examiner still insisted on division and the Commissioner sustained the requirement but at the same time commented adversely on the A plus B claims using the same reasoning as *ex parte* McNeil, 1902, C. D., 313, and *in re* Hawley, 1906, C. D., 576. At even this early date that reasoning had already been published about two years. (See *ex parte* Eynon, 1871, C. D., 239.)

The attempts to meet the filing of aggregation claims by some action which should separate the real inven-

tions present in the case gave rise to much confusion in the early decisions because division of an application was not always associated with a separation of the claims into groups. Thus we read in a decision concerning the oath that "should the Office decide that the combination is not a legitimate one, and require the applicant to divide" an oath made to the combination would not serve for the divisional cases. (*Ex parte* Heginbotham, 1875. C. D., 93.) Also we find an instance where the Examiner insisted upon division although the case contained but one claim. (*Ex parte* Rice, 1874, C. D., 44.) The relation of this source of confusion to the practice which grew up of first disposing of the question of aggregation is seen in *ex parte* Bullard, 1888, C. D., 169, where the applicant originally presented a claim to A and two other claims one to A plus specific B, and one to B plus specific A. After several actions in each of which the Examiner insisted that between A and B there was no combination the applicant appealed to the Board. The Commissioner directed that the appeal be forwarded because if the action against the A plus B claims was not a rejection it ought to have been one and said "if the action be affirmed on appeal, then division may be required between the elements" clearly indicating that a further prosecution before the Examiner after decision on appeal was contemplated.

The anomaly presented by this practice of making applicant appeal to the Board from a rejection of certain claims while other claims had received no action on their merits was defended in *ex parte* Carter, 1889, C. D., 100, where the Commissioner limited it to cases containing claims to A, B, and A plus B. The decision says that the presence of the A plus B claims prevents requiring division between the A claims and the B claims. Such a limitation of the decision was disregarded later, however, and it was declared proper practice to reject claims to A plus B before requiring division although the claims in the case included not only claims to A but also to C and D. (*Ex parte* Tymeson and Borland, 1898, C. D., 48.) This continued to be the practice until *ex parte* Mansfield and Hayes changed it in 1902.

Because aggregation claims were frequently treated

by the Office with a view to obtaining a separation of the inventions in the case, it occasionally happened that a rejection on the ground of aggregation was met by a petition to the Commissioner, that being formerly the method for obtaining a review of a requirement for division. The decisions are uniformly to the effect that an appeal to the Board was the only answer to any such rejection, as it was not a requirement for division. (*Ex parte* Webber, 1902, C. D., 93.)

Whether an applicant who presents aggregation claims has made an election must be determined by noticing whether he has obtained a search and an action on the merits on one of the inventions. Thus where applicant originally presented claims to A and other claims to A plus B and division was not required but later he canceled the A elements from the combination claims leaving them B claims the requirement that the B claims be canceled was sustained. (*Ex parte* Mitchell, 1913 C. D., 233.)

In another case applicant was required to divide between claims to A and a group of claims including claims to A plus B and claims to B and he responded by amending his A claims so that they became claims to A plus B. This amendment was made in the face of the warning that A plus B was not a good combination and not patentable for reasons stated in *ex parte* Casler, 1900, C. D., 5. The claims thus presented were rejected on the ground of aggregation, presumably no search or only a cursory one being necessary for this rejection. Applicant then removed the B element from the combination claims and canceled his B claims. The Examiner refused to enter this amendment but was reversed. The applicant never had an action on the merits based on a search and consequently might still claim that service in return for his fee. (*Ex parte* Day, 1903, C. D., 279.)

A case at first sight similar to this in which the decision was not published presents just the difference needed to illustrate this principle. In this case applicant presented claims to A and claims to B and division was required. He then substituted claims to A plus B and was rejected on the ground that the combination was old, references being cited to show that fact. After several

amendments the combination claims were finally rejected. Applicant then attempted to offer for appeal claims to A and the Examiner's refusal to admit the amendment was based on the ground of shifting after election as well as the ground that the claims applicant sought to present were not merely a better form of the finally rejected claims. The Commissioner sustained the refusal but did not indicate his grounds. It is evident from the preceding discussion that both grounds were good.

Attempts to add combination claims after division has been made are not necessarily a shifting of ground. The combination, if patentable, may or may not be a distinct invention from the element elected and only in the case where it is distinct may the requirement that it be canceled be made. If such combination claims are not to a different invention they must receive action on their merits. (*Ex parte* Brownell, 1901, C. D., 31.)

There are not many perplexities or close questions involved in the practice concerning division. The question of when a case ought to be divided is another and far more difficult matter which is left for some more able writer to present. If the foregoing gives a clear account of the course to be pursued in cases involving the question the object of this paper is accomplished.

The Office and Patent Validity

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

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The Office and Patent Validity

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The patent system of the United States is founded upon Article I, Sec. 8, par. 8, of the Federal Constitution, which reads as follows:

> The Congress shall have power to promote the progress of science and the useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

The importance to the life of the nation of its progress in "science and the useful arts" is second to nothing—with the possible exception of progress in moral and spiritual life—and even the latter undoubtedly is affected by it. In the competition between nations in commerce, war, attraction of immigration, in all that marks the difference between a progressive and a decadent nation this progress is basic. The putting into effect of the only specific, definite provision for this fundamental need which was supplied by the makers of the Constitution rests with the officials and employees of the United States Patent Office.

It behooves us, upon whom this great responsibility rests, as intelligent men to appreciate the nation-wide character and impertance of our work and to bear in mind the good effects of a careful, and the disastrous effects of a careless manner of carrying it out. Our thoughts should project beyond the four walls of the Office to the farthermost boundaries of this great nation and we should realize that a monopoly granted at our hands extends over all this vast territory and for an extended period of time.

There are undoubtedly those, even in public life and in high office who have not a true appreciation of the place which the patent system holds in relation to our national well-being. If there exists an examiner in the Office who can issue a patent carelessly he must share in this lack of appreciation. For the benefit of any such it is desired to take a glance at the importance of the system, the magnitude of the interests involved and afterwards to consider how we should meet the responsibility which is placed upon us.

Speaking of the importance of the patent system, Mr. F. P. Fish says:

> I do not believe that anyone who has given thought to the question can doubt that at the present time no great industrial progress can be expected in a country which does not offer patent protection to those who have it in their power to promote the progress of the useful arts, or fail to conclude that invention and the industrial development due to invention are in any country largely proportional to the extent to which the patent law of that country operates as an effectual stimulant. (Senate Doc. 225, 63rd Congress, 1st Sess., p. 9.)

It hardly seems necessary at this stage of industrial history to advance arguments in favor of an adequate patent system as an effectual, and as far as can be seen, the only practicable stimulant for the promotion of the useful arts that can be given by the community. For many generations it has been generally agreed that a definite and attractive reward was essential if inventions were to be made and introduced into use. Experience has demonstrated that no form of reward so fitted the achievement, was so productive of advantage to the community and was attended by so few disadvantages as the grant to an inventor of a monopoly of his invention for a limited time. While many other forms of reward have been suggested (such suggestions were made at the convention which adopted our National Constitution), they have nowhere been

> adopted as a part of the machinery of society. Everywhere some form of exclusive control for a limited time has been recognized as the best way of dealing with the matter. (Ibid., p. 4.)

Mr. Fish's estimate of the importance of the system is well borne out by a glance at the following statistics for which we are indebted to the Bureau of Census.

The value of wealth produced on the farms of the United States in the year 1914 is given as $9,872,936,000. In that year the value of the manufactured products in the United States is given as $24,246,323,000, nearly two and one-half times as great as the total production of agriculture, while the value added to material by the act of manufacture was for that year $9,878,234,000, a little greater than the entire value of agricultural products.

Practically the whole of the manufacturing industry of the United States is based upon patents. Either the product, the process or machine by which the product is produced, or all three of these are covered by patents at present in force or else the public has been taught all these things by inventors who have had their term of monopoly by letters patent now expired. Such is the course and speed of progress that a large part of this total value depends upon patents at present in force. Even the farm products depend largely upon patented machinery for their production.

The value of manufactures does not tell the whole story of the size of patent interests. Much value is created each year under patents that is not included under the statistical head of "manufactures," for instance—building structures of all kinds, bridges, dams, piles, pavements, irrigation works, tunnels, agricultural processes and animal industries, advertising, moving pictures, sanitation, etc. If the total value of all human endeavor in each of the fields carried out under patents could be known and added to the $24,000,000,000 of manufactures in one year, it would be found that the combined interests affected by the Department of Agriculture, War, Navy, and the remainder of the Interior Department, exclusive of the Patent Office, would be

dwarfed. The latter statement would hold even if it be contended that the total value of the manufactures is a too liberal allowance to the credit of the patent interests since the value of patented enterprise which is not included under the census head of "manufactures" would very much more than compensate for any such discrepancy. In fact, if a person determined to have nothing to do with any article covered by living or expired patents, he would be compelled to leave all his modern clothing behind and go into a wilderness away from all works of man.

A statement of the size of the interests involved in patents does not exhaust this side of the question. Patents not only foster and encourage and improve existing industries but they create new ones. For instance, the value of automobiles, bodies and parts manufactured in the United States in 1914 was $632,-831,000. In 1897 this industry did not exist. In seventeen years, the life of a patent, it grew from nothing to the size stated. The moving picture industry dates from about the year 1898 and has had practically all its growth since 1904. In 1913, $275,000,000 was paid in admissions. In 1915 the industry was estimated to be the second or third largest in the United States, a growth attained in eleven years, six years less than the life of a patent. Inventors under the patent system *created* these vast industries.

Nor is the question of dollars the most important consideration. That is merely the measure of the incentive which the makers of the constitution decided to offer for the purpose of bringing about "progress in science and the useful arts." The meat of the matter will be found when the convenience an l utility of the electric light is compared with the tallow candle; the telephone, telegraph and railway with the pony post; the modern combined harvester and thresher with the sickle and cradle; the pullman palace car with the stage coach; and the automobile and the aeroplane with the ox-cart.

Advance in "science and the useful arts" is basic to the life of the nation and the patent system is basic to the advance. In view of the importance, let us consider what should be our course as intelligent patriots and patent officials.

The statute reads "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, . . . not patented or described, . . . not in public use or on sale, . . . may obtain a patent." It is to execute this law that the examination system exists.

It is often said the "Office exists to grant patents." This is only a half truth and half truths are always dangerous. Much shoddy work may be laid to the charge of this epigram. A judge might as well say, "I sit to render decisions in favor of plaintiffs." The whole truth is that the Office exists as truly to refuse patents in improper cases as to grant them in proper cases. Otherwise our system would be a registration system.

It has been estimated that substantially one-third of the work of the United States Circuit Courts is made up of patent causes. In a very large majority of these cases the question of the validity of the patent is raised. In other words the judges are required, as a not small proportion of their duties, to pass upon exactly the same questions, as are the examiners in the Office. Is the standing of a judge of the circuit court ever determined by the *number* of cases he hears and decides? The question answers itself.

Incidentally, in connection with this phase of the subject, it is believed that the respect due an efficient man in any position should be measured by the nature of the service rendered to society. Is such a service any more valuable because rendered in a court room with advice of counsel on both sides of a question, than if rendered in an office where the judge must also fill the place of attorney for the public?

The difference between examiners as also the difference between judges is believed to be largely determined by the possession of that uncommon quality, common sense, coupled with respect for and interest in the work.

Upon appointment each patent official takes the following oath:

> I do solemnly swear that I will support and defend the Constitution of the United States against all enemies, foreign and domestic; that I

will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties of the Office on which I am about to enter: So help me God.

With this solemn obligation upon him and with the statute before him which reads ". . . not known or used by others in this country . . . not patented or described in any printed publication," etc., can anyone lightly say "I am here to grant patents," and thereupon overlook the conditions precedent to the grant? Just what course of action can reasonably be expected from a conscientious official in the premises? Of course he can not be expected to exhibit clairvoyant powers and say surely that an invention has *never* been known or used. Nor can he be expected out of his salary to purchase all publications ever printed that he may make certain that the conditions of the statute are met. But can not he be presumed, when he says "I find that the matter set forth in these claims is new and falls within the statute," to have searched all available sources open to him in which an anticipation might reasonably be expected to exist? Under his oath of office can an examiner do less? Has the statute above referred to been complied with otherwise? Have we as officials of the Office under the laws, any discretion left us to do otherwise than fulfill the statute according to its terms?

The statute, where it reads, "not patented or described in a printed publication" places the literature of an art on a parity with the patents relating to that art, as anticipation. In some arts the state of the art is pretty accurately reflected in the patents but in other arts this is not the case as, for instance, in the art of civil engineering. In such cases a lack of facilities for search of the literature or a failure on the part of the examiner to avail himself thereof is as bad as a failure to search the patents.

Each applicant pays a total fee of $35 for the grant of a patent. Where, in the patent statutes, can be found any authority for giving the application of one invention

the benefit of two-thirds of the search necessary to determine its novelty and to another one-tenth of the necessary search. If there is no such discretion left us by the law, how can we say "this application is for an unimportant device—I will abbreviate the search"? The statute gives no such discretion, nor should it while all applicants pay the same fees and in view of the human impossibility of an accurate judgment as to the value or importance of an invention, since the small appearing are often of great importance and the large complicated machines are often of slight value as inventions.

Who would fancy that a patent for a hump inside a dress hook would be worth a million dollars? The revolutionary effect of the telephone on modern life is universally admitted now, but when the Bell application was filed it was regarded as an interesting scientific novelty and it is reported that a man prominent in public life was offered a one-sixth interest in it for $10,000, but refused on the ground that he had no money to invest in toys. On the other hand, the Office is crowded with patents with voluminous specifications and many sheets of drawings, each describing machines of the most complicated nature which yet have been total commercial failures. As we have stated, the law gives the examiner no right to exercise judgment as to the relative importance of inventions and until we have an examining corps endowed with prophetical powers it should not do so.

It must be recognized that human beings are not infallible and that some patents even under ever so careful consideration, will be issued which are invalid for lack of novelty. Let us consider the possible effect of such cases.

A very notorious case is that of a patentee holding many patents on a type of structure used almost exclusively in public works. Of the patents up to January 1, 1916, only one claim had been definitely declared by a court to be valid, and this is true in spite of many suits and numerous "consent decrees." This patentee is reported to have stated that he has collected $85,000 in one year in royalties. In other words, the public has had its necessary public works obstructed, has been mulcted in the sum of $85,000 in one year in addition

to annoyance, because of the issue of patents which the results of litigation seem to indicate should never have been granted. Many other cases of improperly granted patents used as "clubs" might be cited and this phase of the patent situation goes very far to blind the eyes of the public to the very great benefits derived from the patent system. The best safeguard against this danger is care in *granting* patents.

There is another very unfortunate aspect to the grant of patents without due care, viz., the possible financial ruin of the inventor himself and his friends. Some years since, an application was filed upon an improvement in a process of casting concrete piles in situ. If a valid patent could be had it would be very valuable. The claims were allowed and an interference was declared which cost the applicant who established priority, all the capital he possessed. After the termination of the interference a substantially complete foreign reference was found in an entirely unlikely class in another division of the Office. The fact that no one was blamable in this instance did not prevent the financial ruin of the inventor.

No vivid imagination is required to appreciate the position of the inventor who receives a patent under the seal of the Office after due proceedings had under an examination system, and who puts all his worldly goods into a factory for manufacture under his patent, when it is found that the examiner, due to any cause whatever, has overlooked an anticipation. An examiner with a sense of responsibility can not view such a situation carelessly!

We have glanced at the effect upon the public and upon the inventor of a hasty grant of patents. There is still a third side to the question—the reaction upon the Patent System.

In connection with the autoclave patent for cement testing the Engineering Record editorially stated as follows:

> On what basis the Office could grant the patent is difficult to imagine, for the fact that the high pressure steam test is not new is known to every one interested in cement testing. . . . To the

layman the granting of this patent is on a par with that for wet concrete, which the wisdom of the Office saw fit to grant.

Eng. Rec., Vol. 60, No. 7, p. 178.

Again:

"The conclusions one must draw from the conditions above cited are a severe condemnation of the Patent Office. There are, however, certain extenuating conditions, which should be borne in mind and which will be found discussed editorially in this issue. To any one acquainted with the art there is no doubt that these patents have been granted contrary to the intent of the patent law."

Eng. Rec., Vol. 60, No. 20, p. 552.

In connection with a suit on the Melber patents in which the defendant won, the Eng. News, Vol. 76, No. 14, p. 668, states as follows:

This case is illuminating in many ways. It shows what may happen to the innocent bystander in the person of an unoffending contractor when a patent suit bomb explodes. These contractors were put to the expense of thousands of dollars because the United States Patent Office did some clumsy work in granting a patent to a man for things that were described, and even patented in the United States, long before he made application for his patent.

A patent to Bone on a retaining wall was sustained in many court decisions and large sums collected by the owner until the subject was carefully investigated, and of this the Engineering Record says:

In spite of the fact that the evidence of prior art introduced by Professor Hatt has, of course, been in existence all the time, previous cases were decided in favor of the plaintiff, apparently ignoring these facts entirely. Assuming that the

> essential requirement of patentability is the proof that the device is new and based on a new idea, the existence of prior designs or prior art based upon the same idea, as shown in the new evidence introduced in this case, certainly raises the question whether the lawyer-controlled system of judging the validity of engineering patents is not inherently weak, to say nothing of the apparent mistakes in the United States Patent Office itself in the issuance of patents, due to a lax system of investigation.
>
> Eng. Rec., Vol. 73, No. 8, Feb. 19, 1916, p. 237, ed.

Many more quotations could be supplied to illustrate the extreme criticism to which the Office is subjected by anything savoring of careless work; in fact, nothing else could be expected in view of the disastrous effect of such work upon the financial condition of inventors as well as upon the public.

It is believed to be true that *no examination* prior to grant of a patent would be preferable to a poor one. If the Office seal did not presuppose a search no encouragement would be held out to the patentee that the patent was good, without an investigation of the matter at his expense. Should, therefore, the examination system be abolished? It appears certain that the present plan of examination can make careful searches and reach a degree of certainty as to novelty, at less expense than the same work could be done by privately hired attorneys, since the salaried examiner has no lost time and is enabled to become better acquainted with one art than a general practitioner could hope to do.

Should the patent system be abolished entirely? Both Holland and Switzerland in modern times have essayed to do without a patent system and their experience seems to show that no satisfactory industrial progress is possible without such a system.

Commissioner Butterworth has said:

> But for the Patent System only an infinitesimal part of the triumphs of inventive genius, which crowd about us in such numbers that we are

wholly unable to appreciate their extent and magnificence, would have been accomplished, and if we would cut the ground from beneath the material prosperity of the age, there is no way in which it could be so effectively done as by a repeal of our patent laws.

P. 386, Patent Centennial Celebration, 1891, Proceedings and Addresses.

The first portion of the present paper attempts to show the basic relation to the progress and therefore the life of the nation, of the patent system. If the point is well taken, if Mr. Fish is correct in his estimate, if the experience of Holland and Switzerland referred to is a guide, the patent system must stand.

If then, we have established that the system must stand, that the examination system is preferable to the registration system, and if an imperfect examination is as disastrous as we have attempted to show, the only course open to us as officials would seem to be one of exceeding thoroughness and careful scrutiny of claims prior to grant of a patent.

By inquiry among the older men in the Office, the writer is assured that the policy of the Office for at least twenty-five years has been to judge an examiner's work by the number of actions made rather than by his thoroughness. This paper is an attempt to make a case for the opposite policy. The matter is set forth more from the standpoint of a patriotic citizen of the United States than that of an official of the Office and is written with a sense of deep conviction of the seriousness and importance of the matter.

December 21, 1916.

Building Structures as "Manufactures"

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

BY

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

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The purpose of this paper is to consider the question whether such structures as buildings and parts of buildings fall within the term "manufacture" as used in Sec. 4886, Revised Statutes. Robinson in his work on Patents defines a manufacture to be—

> "an instrument created by the exercise of mechanical forces and designed for the production of mechanical effects, but not capable, when set in motion, of attaining by its own operation to any predetermined result."

As he points out, a manufacture possesses no inherent law which compels it to perform its functions in a given manner, and in this absence of principle lies the distinction between a manufacture and a machine.

A building, or part of a building, such as a wall, roof, floor, etc., is believed to fall well within the above definition of a manufacture. They are created by the exercise of mechanical forces, are clearly designed for the production of mechanical effects, and are not capable, when set in motion, of attaining to any predetermined result by their own operation.

Robinson, in Vol. 1, footnote to page 249, states that:

"A distinction is necessarily drawn by the courts between a plan or project for doing something and the method by which it is to be physically effected. The former, if the ideas or mode of delineation are new, may be protected by copyright, not by patent since the plan or project though capable of being carried out by the use

> of means is not in itself a means. Thus, an architectural plan for the building of a house, though new and original, is not an art or any other form of invention,"

and cites Jacobs *vs.* Baker (1868), 7 Wall, 295.

One question that presents itself from the above is, what is meant by the expression "a plan or project," in the statement—

> "a distinction is necessarily drawn by the courts between a *plan* or *project* for doing something and the method by which it is to be physically effected."

Of course, it is obvious that as far as the *plan* of a building or jail, in so far as it appears on paper in the form of a drawing, is concerned, it could only be protected by copyright, since when the drawing or plan is completed the result is merely a sheet of paper with numerous straight and curved lines thereon. But how about the completed building and component parts thereof after they are actually constructed? It appears to be equally obvious that *they* would not be the subject-matter for copyright..

An inspection of the Jacobs *vs.* Baker case, supra, reveals that there were four patents sued upon, the first of which claimed "a secret passage, or guard-chamber" arranged in a certain way, and the fourth of which was for constructing and arranging cells in jails with spaces therebetween and one above the other, while the claims of the second and third patents were for the specific structure of the wall and the joint between the plates thereof. Mr. Justice Grier in delivering the opinion of the court said:

> "Now a jail can hardly come under the denomination of 'a machine'; nor, though made by hands, can it well be classed with 'manufactures'; nor, although compounded of matter, can it be termed a 'composition of matter,' in the meaning of the patent act."

Nor did he appear to think that it would come under the head of an "art."

From the subject-matter of the four claims as outlined above, it can be readily seen how those of the first and fourth patents could not be classified under the head of "manufactures," for the reason that they recite no structure whatever, but merely the arrangement of things in space; but when the second and third claims are considered, it is not at all clear how the learned judge could hesitate for a moment to classify the subject-matter thereof under "manufactures," since what these two claims recite is the specific structure of a wall and of the joints between the plate sections of such wall. Such structures clearly would not be properly classifiable under either "art," "machine" or "composition of matter"; however, on the other hand, if they can not properly be called a "manufacture" them a large part of the work in Divisions 33 and 29 (including a great volume of existing patents) must be considered as outside of the provisions of the patent statutes, to wit, for an "art, machine, manufacture, or composition of matter, or any new and useful improvements thereon," and such patents accordingly invalid. This, however, is not believed to be the case, and it is thought that such wall and joint structures are properly classifiable under the term "manufactures" whether claimed as being in a jail, a dwelling house, or piece of cabinet work, the latter of which Webster's Dictionary cites as an example of a "manufacture."

The Jacobs *vs.* Baker case, however, was not decided on the above question of law, but it was decided on the issues of fact, the evidence showing that the plaintiff Jacobs was not the first inventor. The reason for devoting so much discussion to this case is because it has been accepted in subsequent cases, such as the American Disappearing Bed Co. *vs.* Arnaelsteen, 182 Fed., 324, the International Mausoleum Co. *vs.* Sievert et al., 197 Fed., 936, and Fond du Lac County *vs.* May, 137 U. S., 395, as settling the above question.

The structure covered by the patent sued upon in the case of the American Disappearing Bed Co. *vs.* Arnaelsteen, supra, before the Circuit Court of Appeals, Ninth Circuit, was a number of rooms, in an apartment house, so arranged that a recess was formed between two of them, into which recess a bed was to be rolled with the

foot of the bed so designed that it would close the mouth of the recess. In arguing the question as to whether or not the invention in this case came within the meaning of that part of the patent statute which states that patents may be obtained for a new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof, it was contended that it should come within the term manufacture, when that term was given the liberal construction which accords with the genius and purpose of the patent laws. Mr. Justice Gilbert, however, was of the opinion that it would be an undue expansion of the word "manufacture" to hold that it includes the construction of a house, or of any room or recess in a house; that as used in the patent laws, the term "manufacture" comprises articles or implements made by human agency from raw or prepared material; and that it would be a gross misuse of the word to say that a house or a room in a house is manufactured. The court then cited the Jacobs *vs.* Baker case, supra, in support of this view.

In the lower court, Judge Wellborn cited the following definition (among others) of the word "manufacture" as given by Webster: "anything made from raw materials by the hand, by machinery, or by art, as cloths, iron utensils, shoes, cabinet work, saddlery, and the like," and then stated, "These definitions as illustrated by the examples given, obviously do not include a building." He also cited one definition of the word "manufacture" as taken from the Century Dictionary to be, "Anything made for use from raw or prepared materials; collectively, manufactured articles; figuratively, anything formed or produced; a contrivance," and also concluded that this definition did not include a building.

The plaintiff in the lower court called the court's attention to the following paragraph from Walker on Patents (4th Ed.), pages 12 and 13, section 17:

> "The word 'manufacture' has a much narrower signification in the American patent laws than it has in those of England. In the latter it includes everything made by the hand of man; and also includes processes of manufacture. According to the former, processes are patentable because

they are arts, while some of the things made by the hand of man are patentable as machines, and some others are patentable as compositions of matter, and some others are patentable as designs. Whatever is made by the hand of man, and is neither of these, is a manufacture, in the sense in which that word is used in the American patent laws. The term should be held to justify a patent for the invention of a new and useful human habitation, or a new and useful improvement of such a structure. This statement is ventured, notwithstanding the facetious obiter dictum of Judge Grier in the jail case."

Judge Wellborn, however, in dealing with the above quotation from Walker, stated in his decision:

> "If 'manufacture' were held to include everything made by the hand of man, not only would its popular meaning be disregarded, but at least two classifications found in the patent statute would be useless, since manufacture would then comprehend all that is included, either in the word 'machine,' or the expression 'composition of matter.' Furthermore, the text above quoted, notwithstanding the high respectability of its author, is met by the case which he himself refers to as out of line with the statement h ventures, namely, Jacobs *vs.* Baker" (which is the "jail case").

The patent in the above case was held void, on the ground that the subject-matter was not within the patent law.

In considering the term "manufacture," it is believed that the extensive use of the word "article" in connection therewith, as in the expression "an article of manufacture," has possibly had much to do with creating an idea in the minds of some that an object in order to be a "manufacture" must possess portability, and be capable of being made in a factory and placed on the market as a thing which can be readily moved and handled. That this is not the true test, however, is apparent from the

many classes and subclasses in the U. S. Patent Office classification to the contrary, such as Bridges, Masonry and Concrete Structures (under which may be found massive integral column and floor structures, large chimneys, silos, foundations, stairs, arches, etc.), Wooden Buildings, Paving, Ships, and Hydraulic Engineering (with its massive retaining walls and dams). It is obvious at a glance that the above named structures are not built in a factory, but are built *in situ*, the buildings, pavements and the like in their permanent resting place on land, and the ships in dry docks, or on ways. To be sure the smaller component parts may be made in a factory, but can it be said that when these parts are patented nothing further remains to be patented? Clearly not, in view of the endless number of decisions on combinations. Further, if such structures as named above are clearly not within the purview of the patent statutes, is it not readily supposable that in the present endeavor to catch up with the work, the Office would direct that all applications for such structures be at once rejected, without further search, as not falling within the classes of the patent statutes and thus make available the time of more examiners and assistant examiners on other lines of work.

It is generally conceded that a button-hook and a telescope come within the term "manufacture," yet can we say that the former is such, more so than the latter because of its size? Again, where would there be any line of difference in this respect between the small spy glass and the massive astronomical telescope? Would it be with the three-inch stand telescope at the street corner, with the six-inch instrument, or where? Again, would the small pocket revolver be any more a "manufacture" than the hunting rifle, or the mammoth modern cannon with its complex disappearing carriage? In the opinion of the writer, a building, a dam, a bridge, or the like is a "manufacture" just as much as the button-hook, revolver, telescope or cannon.

In support of the contention that a building or a part of a building is properly classifiable under the head "manufactures," the following decisions will be discussed:

In the case of International Mausoleum Co. *vs.*

Sievert et al. (Circuit Court of Appeals, Sixth Circuit, March 3, 1914), reported in 213 Fed., 225, the structure involved was a mausoleum in the form of a community crypt, having a hallway or lobby of sufficient size to accommodate the funeral attendants, and protect them, during the services, from the weather. The catacombs were arranged in vertical rows, tier upon tier, were separated by partitions of cement, and provided with valved-ports which communicated with the air spaces in the outer walls. This structure was clearly a building, and the second claim read as follows:

> "A burial crypt comprising a structure with a reception hall-way, seamless catacombs located therein and spaced from the walls thereof whereby an air passage is formed, said catacombs being provided with valve-controlled ports at their rear ends which communicate with said air passage, said passage being provided with an outlet at or near the top of the structure, also valve-controlled ports at the front ends of the catacombs through which the air may be exhausted therefrom after the same are sealed."

The lower court, following Jacobs *vs.* Baker, Fond Du Lac County *vs.* May, and American Disappearing Bed Co. *vs.* Arnaelsteen, supra, held the patent involved to be for a building and therefore void as for a subject-matter not within the patent laws. This was reversed, however, in the upper court, by Judges Denison, Knappen and Cochran; the court saying:

> "It seems clear that the making of the various parts of the mausoleum would be manufacture. The subject, in our opinion, does not lose its nature from the mere fact of the bringing of the parts together in a complete whole. . . . We think an improvement in mausoleum construction, aimed at securing convenience, preservation of the body, and sanitary conditions, should be classed as a manufacture under the patent statute."

In Johnson et al. *vs.* Johnston, 60 Fed., 618, Judge Acheson stated:

> "The term 'manufacture,' as used in the patent law, has a very comprehensive sense, embracing whatever is made by the art or industry of man, not being a machine, a composition of matter, or a design."

This was quoted with approval in Traction Co. *vs.* Pope, 210 Fed., 443, Mausoleum Co. *vs.* Sievert, 213 Fed., supra, and Riter-Conley Co. *vs.* Aiken et al, 203 Fed., 699.

In the latter case the Aiken patent No. 718,044 was for a roof structure designed for use on large manufacturing buildings. In holding this to be patentable subject-matter the court said:

> "To us it is clear that as building is embraced in the inclusive scope of 'useful arts,' and as buildings, both as a whole and in their constituent parts of wood, brick, glass, iron, etc., are manufactured products, and not natural objects, they fall within the broad terms 'manufacture' of the act of Congress and 'useful arts' of the Constitution. . . . To say that a roof falls within the domain of architecture is not to decide the question; for the question is not whether a roof construction is included in architecture, which of course, it is, but whether the roof section here in question is, in view of its several constituents and cooperating elements, a manufacture. We must not be misled by the factors of size and immobility. The pyramids, by reason of their bulk and solidity, are none the less a manufacture, as distinguished from a natural object."

Attention is further called to this case, and the decision in the lower court found in Aiken et al. *vs.* Riter Conley Co., 205 Fed., 531, and the cases cited thereunder, as containing an interesting discussion of this question.

Robinson, in Vol. I of his work on "Patents," section 183, says, in discussing the subject of "Manufactures":

> "The species of inventions belonging to this class are very numerous, comprehending every article devised by man except machinery upon the one side, and compositions of matter and designs upon the other."

That an arch of a bridge or like structure is a "manufacture" within the meaning of the patent law, see Thacher *vs.* Mayor and City Council of Baltimore, 219 Fed., 909.

In Turner *vs.* Quincy Market Co., 225 Fed., 41, the Turner patent, No. 985,119 for an improvement in steel skeleton concrete construction in structures erected at least in part of reinforced concrete, was held to be for a "manufacture," within the meaning of the patent law.

In conclusion, it is believed that a consideration of the foregoing cases establishes the fact that the weight of authority is clearly to the effect that a building, or part of a building, is properly classifiable under the term "manufacture," and therefore constitutes patentable subject-matter; and that the Patent Office is not in error in granting patents for this class of structures.

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Identity of Invention in Applications for Reissue

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

BY

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WASHINGTON, D. C.
1916

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Identity of Invention in Application for Reissue

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GENERAL STATEMENT.

Section 4916, Revised Statutes, so clearly implies what subject-matter an application for reissue may cover, that there is hardly room for judicial construction.

The purpose of reissue is the amendment of an imperfect, existing patent so that it may properly disclose and define the invention which it was the purpose of the original patent to secure. Inasmuch as a reissue is the correction of an imperfect patent for an actual invention and not the grant of a new patent, it can cover nothing which was not intended and attempted to be disclosed and claimed in the original.

There must have been an actual invention comprising a conception and a reduction to practice or its equivalent in such a form that it was capable of being understood by those sikIled in the art to which it belonged. The inventor must have perceived the character of his invention to such an extent that he was capable of conferring it on the public and he must have made a bona fide effort to describe and claim his invention in his application for a patent. These are prerequisites to the granting of any patent. If no invention in this form existed at the time of granting of the original patent, no reissue can be granted for something which the inventor subsequently perceives may be the subject-matter for a patent. A reissue may not be granted in those—

> "cases in which it is sought to make over an old patent, and by ingenious afterthought, either

> with the assistance of new matter or by a new version of old matter, put into a patent what was not there before."
>
> Coldwell-Gilchrist Co. et al *vs.* Stafford Co., 197 Fed., 538.

What a reissue may include is stated by Robinson, Section 661, in the following words:

> "A reissue may embrace whatever was suggested or substantially indicated in the original specification or drawings as belonging to the invention actually made and embodied in the original patent."

This rule provides a means for determining identity of invention or, in other words, whether the reissue is for the "same invention" as required by Section 4916, Revised Statutes.

The first case in which it was necessary for the court to determine what a reissue might contain, was Knight *vs.* Baltimore and Ohio R. R. Co., 3 Fisher, 1, decided in 1840. The court said:

> "The plaintiff was not entitled to the patent of 1831, except for the purpose of giving a more perfect description of the invention *intended* to be claimed by him in the patent of 1829."

The familiar case of Parker and Whipple Co. *vs.* Yale Clock Co., 123 U. S., 87, probably best states the rule that a reissue must be for the same invention as that intended to have been secured in the original. At any rate, it is the case most frequently cited on this point.

Many other cases state the rule in practically the same way. Indeed, it is somewhat surprising in view of the reasonableness of the rule and the logical development of it from a consideration of the purpose of reissue and from the statute itself, that any decisions can be found which state a different rule. Some decisions state that an inventor may embrace in his reissue his entire actual invention. Others go even farther by stating that the

reissue may include whatever was substantially disclosed in the original or whatever might have been claimed in the original.

A recent case in the court of appeals in the seventh circuit arrives at the opposite extreme in determining identity of invention. This case is not followed by the Patent Office nor in all of the circuits. The case referred to is McDowell *vs.* Ideal Concrete Mach. Co., 187 Fed., 814, decided in 1911. The court used the following language:

> "One condition is that, on the surrender of the original patent, a new patent 'for the same invention' shall be issued, . . .
>
> "For example if, in a patent for improvements in an old art, the drawings fully exhibit a complete and operative machine made up of twenty elements; the specification (apart from the claims) clearly explains the machine, its working principle and the best mode in which the patentee has contemplated applying that principle, and also particularly points out that the patentee's contribution to the art consists (a) of the combination, in the machine, of elements 1, 2, 3 and 5, (b) of elements 2, 3, 4 and 6, (c) of elements 5, 6, 7 and 9, and (d) of elements 6, 7, 8, and 10 (all in accordance with Section 4888, Revised Statutes, and claims distinctly cover (a), (b) and (c)—then there would be a basis for an application for a reissue by showing, say, that claim (d) had been drafted but had been inadvertently omitted by a copyist. Conversely, if claims (a), (b), (c) and (d) were in the original and by mistake some part of the description of the machine had been omitted, or there had been a failure in the statement of invention to include (d), there would be grounds for a reissue. In the first example the patent (partly operative) would be inoperative to protect a part of the invention, described but not claimed; in the second, claimed, but not explained and described. In both there would be a defective or insufficient patent which was inoperative to secure fully to

the inventor a monopoly of the subject-matter disclosed in the patent as his invention or inventions.

"Continuing the illustration suppose that the original patent, after describing the machine as aforesaid, and particularly pointing out that the invention or inventions consisted in (a), (b), (c), and (d), had distinctly claimed (a), (b), (c), and (d). In what respect is the patent inoperative or invalid? True, the drawings and description showed a machine of twenty elements. But anyone on reading the patent would have the right to believe and to act on the belief, so far as the owner of the patent is concerned, that elements 11 to 20 and every combination thereof, were open to free use, and that elements 1 to 10 were open, and also every combination of them except (a), (b), (c), and (d). Now, if the truth was that the inventor in constructing the machine had made new and useful combinations among elements 11 to 20 and also broader inventions than those described and claimed among elements 1 to 10, it would seem from his point of view they were all one and the same invention, or group of inventions. But if enlargement is to come, not from evidence contained in the original patent (or in the proceedings to obtain it) but from what the inventor subsequently says (truthfully or untruthfully) was in his mind prior to filing the original application, a region of danger, of temptation to fraud and deception, would be opened wide which Congress has commanded should be kept closed. For the reissue must be limited to the same invention that the inoperative patent discloses as the invention."

The rule laid down by this decision is too harsh and if followed would prevent the reissue of many patents fully disclosing the invention but improperly claiming it.

The application to specific cases of the rule for determining identity of the invention is not so simple, in view of the fact that in many cases more than a single inven-

tion is disclosed. It does not follow from the rule stated that the claims in the reissue must be confined to the particular invention or combination claimed in the original. It is probably safe to say that in the reissue application the inventor may claim all the combinations and subcombinations necessary to secure to himself the benefits of the invention disclosed and intended to be covered in the original—provided that all such subsidiary inventions are dependent upon the principal invention, and do not violate any of the rules governing the joinder of inventions. And provided also that there is nothing in the original patent or in the proceedings to obtain it which would estop the inventor from asserting a claim to such subcombination or element.

COMBINATIONS.

It is doubtful whether the mere omission of one element of a combination from a claim in a reissue would invalidate the claim, especially if the cooperative law under which the elements were associated remained the same.

A patent for a combination of elements can not be reissued to cover the same combination to which is assigned a different cooperative law. In Idealite Co. *vs.* Protection Light Co., 103 Fed., 973, the following claim appeared in the reissue:

> (1) In a hydrocarbon burner, the combination with the burner outlet orifice, a valve, a cylindrical sizing and cleaning stem carried by the valve, and adapted to extend through said orifice and clean the same, said stem having a diameter equal to that of the orifice.

In the original "the sizing and cleaning stem" was assigned merely the function of a valve stem guide. The claim was held invalid because for a different invention.

Certainly all non-essential elements and unimportant limitations may be omitted from the claim in the reissue.

> Parham *vs.* The American Button-hole, etc., Co., 4 Fisher, 468.
> Battin *vs.* Taggart, 17 How., 74.
> McWilliams Mfg. Co. *vs.* Blundell, 11 Fed., 419.

But where, as in Johnson *vs.* Railroad Co., 105 U. S., 539, 1882, C. D., 336, the patentee omitted from the claim in his reissue elements which were described as essential in the original, the claim was held invalid because for a different invention.

In Russell *vs.* Dodge, 93 U. S., 460, 1877 C. D., 163, the patent was for a process of treating bark-tanned lamb or sheep-skin by means of a compound in which heated fat liquor was an essential ingredient. The claim in the reissue, however, was not limited to the use of *heated* fat liquor. The specification stated merely that it was desirable that the liquor should be heated. The reissue was held invalid on the ground that the patentee claimed a different invention. See also:

Huber et al *vs.* Nelson, 63 O. G., 311 (Sup. Ct.).
U. S. Whip Co. *vs.* Hassler, 134 Fed., 398.
McMurray *vs.* Mallory, 111 U. S., 97.
Fetherstone *vs.* Cycle Co., 57 Fed., 631.
Gill *vs.* Wells, 22 Wall., 1.
Jenkens *vs.* Stetson, 32 Fed., 398.

COMBINATION AND SUBCOMBINATION.

A combination may be reissued to include claims to subcombinations which are a part of the principal invention, in order to adequately protect an invention.

In Odell *vs.* Stout, 22 Fed., 159, the original claim covered the combination in a roller mill for crushing or grinding grain of means for simultaneously adjusting the crushing or grinding rolls to or from each other, and controlling the spouts or channels which admit the grain to the feed rolls. It was reissued to cover two subcombinations, one combination consisting of a machine for controlling the gates of the spouts, and the other for controlling the rolls. The court held the claims valid because they were necessary to protect the patentee's invention. See also Gage *vs.* Herring, 107 U. S., 640, Jenkins *vs.* Stetson, 32 Fed., 398.

It follows that a patent for a combination which fails to properly protect the invention because it claims only the entire combination, may be reissued with claims for certain elements of the combination.

In Wheeler *vs.* Clipper Mower Co., 29 Fed. Cases,

page 881, a patent which claimed a mowing machine as an entirety was reissued in five divisions with claims for various elements of the machine because it was discovered that the original claim for the combination did not protect the various elements of the machine.

PROCESS AND PRODUCT.

When the invention of a process necessarily involves the invention of the product, the process may be reissued to include the product.

In Asbestos Shingel, Slate and Sheathing Co. *vs.* H. W. Johns-Manville Co., 184 Fed., 620, the original patent was for a process of producing artificial stone plates. It was reissued to cover not only the same process but the product of the process, in the following claim:

> A product of the invention hereinbefore set forth, being a composition containing hydraulic cement which has been rendered colloidal,

the court held that the foregoing claim was valid and "that the product" was "the same invention as the process itself."

See also—

Tucker *vs.* Dana, 7 Fed., 213.
Washburn and Moen Mfg. Co. *vs.* Haish, 4 Fed., 900.

But where the invention of the process does not involve the invention of the product, a process reissued as a product is void.

In The Giant Powder Co. *vs.* California Powder Works, 98 U. S., 126, a process of exploding nitro-glycerine was reissued to cover a composition of nitro-glycerine and gun powder. The reissue was held invalid because the invention of the process did not involve the invention of the composition.

PROCESS AND APPARATUS.

The question whether a patent for a machine may be reissued as a patent for a process has been decided both ways.

In James *vs.* Campbell, 104 U. S., 336, a patent for a

device or a stamp for cancelling postage stamps was reissued to include a claim for the process of making a postmark and cancelling a postage stamp by a single blow. The court, in considering the question of the identity of invention, said:

> "A patent for a process and a patent for an implement or a machine are very different things. . . . Where a new process produces a new substance the invention of the process is the same as the invention of the substance, and a patent for the one may be reissued so as to include both, as was done in the case of Goodyear's vulcanized rubber patent. But a process and a machine for applying the process are not necessarily one and the same invention. They are generally distinct and different. The process or act of making a postmark and cancelling a postage-stamp by a single blow or operation as a subject of invention is a totally different thing in the patent law from a stamp constructed for performing that process."

Unless the invention of the machine is also the invention of the process, a patent for a machine can not be reissued for the process performed by the machine. Cases in which the same inventive act creates both process and apparatus are necessarily rare, because ordinarily a process must be capable of contemplation apart from the particular apparatus for performing it, and, since the machine or apparatus and the process are usually distinct inventions, the apparatus can not be reissued for the process.

In this class of cases the decisions confuse the question of identity of invention with the question of changing the scope and laches. They state that a machine can not be reissued for a process because the latter is much broader in scope than the former. If both were the same invention, their respective scopes would be immaterial.

Thus, in Conroy *vs.* Penn Electrical and Mfg. Co., 173 Fed., 299, the original patent was for a method of shaping the edges of glass articles, which consisted in removing by blows at successive points closely adjacent

to the edge, the edge and a portion of the opposite side of the article. It was reissued to cover a machine for chipping the edges of glass articles, comprising a support for the glass and a movable carrier provided with projecting means arranged to strike the glass an angular glancing blow at a point adjacent its edge.

In a previous suit, 155 Fed., 423, the method claim was held invalid because it was old, the court stating that the patentee's contribution to the art was a machine for performing the method. The court was probably influenced by the fact that the reissue for the machine narrowed the scope of the invention. If the patent had been for the machine and had been reissued for the method the court probably would have held the patent invalid because it broadened the scope of the monopoly.

However, In re Heroult, 127 O. G., 3217, a patent for an electric furnace was reissued to cover both the furnace and a process for obtaining soft metals. The peculiar circumstances surrounding this case may have justified this decision of the court. It is believed that the decision does not go so far as to establish any general rule.

Although the language quoted from James *vs.* Campbell, supra, was probably mere dictum and not necessary for the decision of the case, it is believed that in that case the court correctly stated the rule relative to the reissue of apparatus for process, and vice versa.

CONCLUSION.

A division of the subject along the foregoing lines is for convenience only. The important thing to be determined in an application for reissue is whether the invention which the applicant is seeking to protect is the invention which he attempted and intended to protect in the original. If this question is answered in the affirmative, the manner in which such invention was claimed in the original and the manner in which it is claimed in the reissue would seem to be immaterial. The applicant should be permitted to claim his invention in the manner best adapted to secure to himself the benefits thereof. The only restrictions placed upon his freedom to claim the "same invention" as he sees fit are those of laches, intervening rights, and estoppel.

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Patents—Commercial and Otherwise

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

BY

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Patents—Commercial and Otherwise

By

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Patent assets in corporation balance sheets have been in the past and are today generally regarded with distrust. The larger the item the greater the distrust and criticism. If a search is made through the annual reports of those corporations whose business is based largely on patent monopoly, but few will be found that attempt to itemize their patents in dollars and cents. Some of the larger and more successful of such corporations have in the past issued annual reports containing substantial items charged to patents, running up into the millions, and have been subjected to such criticism by the large banking and bond houses that in subsequent annual reports they have written off large percentages of the patent valuation at the expense of the net earnings for the particular year. Other corporations have bunched their patent items with other forms of property so that the report was worthless for reaching any idea of the estimated value of the patents. Still another form of report made no mention of patents as a portion of the assets.

Patents are property, and property of such an important nature in this country, that it should not be considered as a laudable financial policy by any corporation armed with patents cap-a-pie to belittle, secrete or omit them in an annual report.

Proper valuation of a patent is an intricate problem. The elements that enter into the solution of such a problem are the state of the particular art, past and present, the probable demand or field of exploitation for the subject-matter of the patent, and the length of term it has to run. The future state of the art and the

public demand or field for the article or process can only be known as the future develops into the present.

The life of a patent is limited to 17 years. However, with many forms of patentable subject-matter the improvements made upon it before the expiration of the life of the basic patent, in this progressive age, are such that a hold on the larger market of the future may practically be ensured by patents on the improvements, and a keen lookout will add to it the patent-control of new developments or side issues relating to the field of the basic patent. Patent property which can be built up and developed in this manner is independent of the life of a particular patent.

Those corporations whose business is based upon patented subject-matter and whose net earnings largely or wholly arise from such subject-matter are usually protected by a group of patents. The assumption is then made that the owner of a monopoly in the industrial arts, after the actual introduction of the particular art or improvement so that it is a money-earner, will at least secure 50 per cent over the net earnings that would be possible if no monopoly existed, i. e., one-third of the net earnings are due to patent protection.

An estimate will be based on a life of 17 years for a single patent with the cessation of manufacturing and total loss of the original investment at the end of the term. Capital will be satisfied with an annual dividend of $12\frac{1}{2}$ per cent for 17 years without the return of the original investment which would be equivalent to an annual interest rate of slightly over 10 per cent under normal conditions; a 10 per cent net income annually may be considered as a fair return for a manufacturing business. Adding $6\frac{1}{4}$ per cent to the $12\frac{1}{2}$ per cent for a 17-year period, which is the 50 per cent increase for the patent monopoly, makes $18\frac{3}{4}$ per cent as a fair rate of return on a manufacturing business with patent protection for 17 years under normal conditions and as a general average for such business in this country.

The value of the patent protection at any specified time would be the present worth of an annuity, on say a 6 per cent basis, for the unexpired portion of the 17-year period, said annuity being one-third of the net earnings and fixed charges.

The outline just given furnishes the basis for a rough estimate of the value of a patent which is obtained by taking the net earnings plus fixed charges for one year, multiplying the same by the number of years the patent still has to run, and dividing the product by 5. Obviously, if a corporation has no debts the fixed charge item will be absent.

In case a corporation should maintain practically a continuous patent protection its value would be roughly equal to $3\frac{1}{2}$ times the net earnings plus fixed charges for one year.

It seems remarkable that the existence of the vast amount of wealth represented by patents for inventions should be kept so far in the background. Patent protection exerts its controlling influence on all the industrial arts, to their minutest ramifications, exacting tribute from all. The aggregate of the tribute thus collected would be an amount stupendous to contemplate. At first blush it would appear that the patent system of levying in the industries of the country would hamper and impoverish them to such an extent that commercial depression would result. On the contrary the effect has been to give a stimulus to our industries such that our patented specialties form some of the large items of our export trade, and patent protection has enabled us to obtain a firmer grip on the trade of the world.

In order to get a general idea of how the leading industrial corporations of this country treat their patents in their annual reports in the enumeration of their assets I searched carefully through Moody's "Analysis of Public Utilities and Industrials," for the year 1916.

I find 386 corporations that probably have patents or licenses under patents. Fifty-six of these corporations report their patents or patents and trade-marks as independent items in their balance sheets. Forty-four corporations bunch good-will, patents and trade-marks in single items. Fourteen corporations specify patents and include the same with their general property item.

The following is a list of the 56 corporations with the amounts they have charged up to patents in the manner specified below as given by Moody:

Corporations	*Dollars*	*Title of Items*
Ajax Rubber Co.	1	Patents.
American Brass Co.	1,000	Patents.
American Cyanamid Co.	3,543,475	Licenses, Patents, etc.
American Rolling Mill Co.	1,350,000	Patents, Licenses, etc.
American Wringer Co.	100,000	Patents, Trademarks.
Avery Co.	98,869	Patents.
Atlas Tack Co.	1,403	Patents and Trademarks.
Bemis Bros. Bag Co.	3,998	Patent Rights.
E. W. Bliss & Co.	1,023,341	Patent Rights.
Boston Woven Hose & Rubber Co.	1	Patents.
J. I. Case Threshing Machine Co.	1,036,027	Patents, Designs, Devices, etc.
Casein Co. of America	4,555,168	Patents.
Dennison Mfg. Co.	13,418	Patent Rights.
Diamond Match Co.	2,000,000	Patent Rights.
Draper Co.	100,000	Patents, etc.
Electric Storage Battery Co.	11,000,000	Patents, Trademarks and Agreements.
Emerson Phonograph Co.	1,000,500	Patents.
Fairbanks & Co.	3,142	Patents.
Ford Motor Co.	64,339	Patents.
General Motors Co.	413,500	Patents, Agreements, etc.
Gillette Safety Razor Co.	900,000	Trademarks, Patents, etc.
Goodyear Tire & Rubber Co.	1	Patents, Trademarks and Designs.
Gray & Davis, Inc.	307,748	Trademarks, Patents, etc.
Hall Mfg. Co.	238,282	Patents.
Hood Rubber Co.	1,000	Patents.
Ingersoll-Rand Co.	683,000	Patents, etc.
International Rubber Co.	15,142	Patents.
International Button-Hole Sewing Machine Co.	325,301	Patents and Machines on lease.
Joffery Mfg. Co.	193,856	Patents.
Keystone Steel & Wire Co.	78,672	Patents, Drawings, etc.
Lanston Monotype Machine Co.	4,372,046	Rights, Franchises, Improvements and Patents.
Lee Tire & Rubber Co.	400,800	Patents, Trademarks, etc.
Link-Belt Co.	50,000	Patents.
Morgenthaler Linotype Co.	4,000,000	Rights, Privileges and Franchises.
Miller Rubber Co.	125,000	Trademarks and Patents.
Ohmer Fare Register Co.	925,000	Patents.
Packard Motor Car Co.	1	Rights, Franchises, etc.
Page Woven Wire Fence Co.	1,000,000	Patents, Franchises, etc.
Pennsylvania Salt Mfg. Co.	5,275	Patents.
Plymouth Rubber Co.	100,000	Patents and Trademarks.

Corporations	*Dollars*	*Title of Items*
Reece Button-Hole Machine Co....	882,367	Patents.
Reading Hardware Co.....	500,000	Trademarks and Patents.
Sherwin-Williams Co....	67	Patents and Trademarks.
St. Louis Car Co	507,915	Patents and Patterns.
Standard Motor Construction Co.	1,716,388	Patents.
T. H. Symington Co.....	1,102,667	Patents.
Submarine Signal Co	1,263,304	Patents.
Union Switch & Signal Co....	1,025,725	Patents.
United Shoe Machinery Co.....	400,000	Patent Rights.
United Drug Co.....	9,971,213	Trademarks, Patents and Formulas.
U. S. Bobbin & Shuttle Co	2,482	Patents and Patterns.
Utica Knitting Co...	16,000	Patents.
Ward Baking Co	6,000,000	Patents and Trademarks.
Warren Bros.....	2,000,000	Patents.
Waltham Watch Co.....	4,502,000	Patent Rights.
Westinghouse Elec. & Mfg. Co ...	4,852,648	Charters, Franchises, Patents, Insurance.
Yale & Towne Mfg. Co.	2,000,000	Patent Rights and Trademarks.

The following is a list of the 44 corporations which include as a single item good-will, patents and trademarks:

Corporations	*Dollars*
Advance-Rumely Co.....	14,172,305
American Can Co.....	6,907,287
American Cotton Oil Co.....	11,635,886
American Chicle Co.....	8,155,896
American Graphophone.....	1,500,000
American Pneumatic Service.....	7,243,597
American Piano Co.....	3,790,723
Brown Shoe Co.....	4,966,365
Butterick Co.....	9,786,065
Central Foundry Co.....	5,623,094
Chicago Railway Equipment Co.....	750,000
Crex Carpet Co.....	550,000
Davis Sewing Machine Co.....	88,765
Driggs-Seabury Ordnance Co.....	1,370,388
Emerson-Brantingham Co.....	4,641,403
Fisk Rubber Co.....	8,000,000
Robt. Gair & Co.....	1,575,000
General Acoustics Co.....	536,101
General Electric Co.....	1
General Railway Signal Co.....	3,000,000
Griffin Wheel Co.....	6,950,000
Harrison Bros. & Co., Inc.....	250,000
Herring-Hall-Marvin Safe Co.....	290,000
International Motors Co.....	6,153,266
Kellog Switchboard & Supply Co.....	1,000,000
Library Bureau.....	1,500,000

Corporations	*Dollars*
Locomobile Co. of American	5,310,746
Massachusetts Breweries Co.	2,276,765
Maxwell Motor Co.	26,500,000
Peerless Truck & Motor Corp.	3,707,060
Pettibone-Mulliken Co.	7,451,448
Pneumatic Scales Corp.	827,724
Pyrene Mfg. Co.	1,002,450
Shredded Wheat Co.	6,500,000
Springfield Body Corp.	1,511,554
Stafford & Co.	1,203,854
Studebaker Corp.	19,807,277
Submarine Boat Corp.	7,332,337
Underwood Typewriter Co.	7,005,720
U. S. Radiator Corp.	4,000,000
Victor Talking Machine Co.	2
Westinghouse Air Brake Co.	2,700,515
Willys-Overland Co.	14,059,932
Worthington Pump & Machinery Co.	7,567,073

The 14 corporations named below specify patents in their general property item:

Auto Electric Co.
Auto Sales Gum & Chocolate Co.
Chicago Pneumatic Tool Co.
Chevrolet Motors Co.
E. I. du Pont de Nemours & Co.
Federal Sign Co.
General Manifold Printing Co.
Kelly-Springfield Tire Co.
National Candy Co.
Remington Typewriter Co.
Richmond Radiator Co.
Safety Car Heating & Lighting Co.
Sears, Roebuck & Co.
Weyman-Bruton Co.

Moody's digest does not give a list of all industrial companies and corporations doing business in this country. Many of those he lists apparently are not actually engaged in manufacturing. Many of them refused to give him any information as to the status of their business. It is probable that there are at least 1,000 companies and corporations in this country having patents, or licenses under the same, actively engaged in the manufacturing business. There are also probably an equal number of such corporations and companies

which for numerous reasons are not actively engaged in business.

The world-wide significance of the protection afforded under our patent laws is clearly brought out in an article from the New York Times of November 12, 1916, which I quote below:

> "It may be, now that there is no occasion to overstate or underestimate things because of partisanship, that more rational views will prevail as to the supposed greater efficiency abroad than in this country. As an aid in this direction it may be well to call attention to certain undisputed facts. Quite recently delegations from Australia and France have started for this country with a view to learning the secrets of American efficiency in various lines of manufacture. Such delegations have also come here in times past from Japan, China, Great Britian, Germany, and elsewhere. In consequence of such visits, orders have been put in from these various countries for machinery of American make, and manufacturers here are still engaged in supplying equipment for foreign mills, factories, mines, and farms. The older countries are much more conservative than is this in adopting new devices, and are also much slower in sending to the scrap-heap antiquated machinery. The result has been, in past years, that they have kept on using older forms of mechanism after they have been discarded here for newer ones that called for less manual labor. Even the Germans have usually been a few years behind this country in this respect. By the time they had installed some new American machinery it had already been superseded in this country by something newer. No other country has yet shown the inventive ingenuity which this country has, and upon this reliance can safely be placed in the future."

William Hard, the well-known writer for the Metropolitan Magazine and the Chicago Herald, after a ten weeks trip, recently said:

> "I see new American machines all over Great Britain. I also see something a great deal more important than new American machines, and that is new American ideas—ideas about the layout of machines in the factory room, ideas about the using of unskilled labor efficiently by planning all the work out before hand in the brains of staff specialists; ideas, in short, of scientific management. I have met young engineers in Scotch shipyards who were filled to the teeth with the writings of Frederick Taylor and Harrington Emerson and all our other important efficiency engineers."

Mr. Hard further makes an interesting comment on the British situation as to the labor unions versus labor-saving machinery. He says:

> "The Government has given its word to labor that working conditions in British factories after the war will be put back just where they were from the standpoint of labor before the war. But everybody, including the labor leaders, knows that this is impossible. You can't take all these hundreds of thousands of new labor-saving machines and throw them away. Therefore, some new deal must be made. The pledge to labor has to be redeemed, but redeemed in a different way. Labor can not be given the thing it was promised."

James Keely, editor of the Chicago Herald, referring to Mr. Hard's remarks, says:

> "Mr. Hard has judged the situation expertly, and, as no such combination of national forces is in prospect in the United States, the greatest lesson I can see over here is that these European belligerent countries, unless we act quickly, will be ahead of us instead of behind us in organized national industrial strength."

During the past decade a great hue and cry has been raised as to conservation of the natural resources of this country. By legislation vast sections of territory have been set aside as forest reserves. Large amounts of public lands supposed to contain oil, gas or coal deposits have been withdrawn from that portion of the public domain open to private or corporate ownership. We read about these things on the front page of the newspaper. It appears, however, that a large amount of credit for the conservation of the natural resources of this country should be given to the inventor and patent laws. Mr. Samuel Insull of Chicago, in his address before the engineering societies on April 5, 1916, at New Haven, Conn., showed that the Commonwealth Edison Co. of Chicago had dropped the coal consumption per kilowatt-hour from 7 pounds in 1901 to 2.7 pounds in 1915.

As to the saving of coal Mr. Insull says:

> "I think that while a great many of our well-intentioned friends have been shouting about the conservation of natural resources, the steam-turbine inventors and the designing engineers of the great power companies using steam as a prime source of power have probably done more to conserve the natural resources of this country, in so far as fuel is concerned, than has been done by all the agitation that has taken place upon the general subject of conservation."
>
> "It is interesting to note that the saving in Chicago per unit for the fourteen years from 1900 to 1915, was equivalent to a saving for the year of 1915 of 2,472,400 tons, or 58,000 carloads of coal per year, or fourteen loads of forty cars each per day."

The main purpose of this paper is to emphasize the importance of our patent system in the commercial and industrial activities not only of this country but of the whole world, and to urge upon the Office the necessity of taking a broadgage view of its work. I have long had the opinion that there was great danger of a Patent Office Examiner becoming too narrow and restricted in his views.

Vigilant search for missing reference characters and lead lines on the drawings, errors in punctuation, spelling and grammar in the specification, and the many technicalities as to the form of claims must have a tendency to dwarf his general outlook as to the large and important features of the patent business.

The danger of becoming too deeply engrossed along a single highly specialized line was illustrated in the case of an old friend of mine, Mr. D., long since dead, who spent nearly half a century trying to perfect a divided car axle and to induce the railroad officials to give it a tryout. After a life's work on the divided axle he finally got the Union Pacific to equip one freight car with his axles. The freight car was sent out on the road; the only information Mr. D. ever could get from the Union Pacific was that the car had disappeared and they couldn't find it. In his latter days Mr. D. became almost totally blind. About once a year he made me a visit at the Office. He would get some one to bring him over to my room and would talk about his divided axles until the Office closed and then I would take him back to his room. He would then insist on my coming back and spending the evening with him further to discuss the divided axle, which I frequently did. I was never enthusiastic about the possibilities of the divided axle. Any suggestions I made of some possible difficulties in the practical use of it were always brushed aside as trivialities with a shade of annoyance.

In my university reunions I have frequently met Government employees whose life work was on some exceedingly technical or scientific line and when I tried to start up conversation with them on general topics I found it made them weary and that they had nothing much to say. I would then inquire what their special work was and lead them along to give me a lecture on their technical branch of work, and I must say usually to my profit and interest. However, the meeting of these technical experts led me to resolve strenuously to avoid getting as deeply in the rut of routine work as they were.

When I used to hunt ruffled grouse I frequently had to smile at my dog who would be excitedly creeping along a hot trail with his nose close to the ground while

I already had his birds covered with my gun waiting for a rise. The joke was on the dog for the reason that he had his nose too close to the ground.

My advice to any one at work in a highly specialized line is to take up some other specialty of a radically different character and try to work up an interest in it equal to that he has in his specialized line of work. This will give a person a better mental balance and incidentally broaden his views. This advice is not intended for a person who has no particular interest in his specialized line of work.

In an examination of an application the Patent Office seldom presses the question of utility very far. The Patent Office has not facilities for determining the utility of a device. With equipments such as are possessed by the Bureau of Standards, the Chemical branch of the Agricultural Department, or the shops of the Navy Yard, something might be accomplished toward determining the practical commercial possibilities of a device. But even with such equipments no definite results could be reached in a large percentage of the cases filed in this Office. The Office therefore takes the broadest possible view of the term utility as meaning operativeness to perform some useful function.

Undoubtedly, a considerable percentage of the patents issued are commercially impossible. The Office has been frequently criticised for issuing patents that persons skilled in the particular art would stamp as impossible from a commercial standpoint. Reflection has been made upon the Examiners as though in the allowance of such cases they had in some way approved the device as a practical commercial possibility. Personally in the examination of applications the first thing I do is to classify the subjects-matter of the applications into three classes: First, commercial possibilities; second, doubtful cases; and, third, commercial impossibilities. Obviously the first class merits the most careful attention on the part of the Office, the second class a lesser degree of attention, and the third class is easy.

I have noticed that new Assistant Examiners as soon as they have become familiar with the commercial field of their work act along the lines above indicated. An Assistant Examiner who does not take a live interest

in what is doing commercially along the line of his specialty should be put on a line of work that has no commercial field.

All patents do not represent wealth. No form of property requires the use of higher technical knowledge, more legal acumen, or sound judgment in reaching an estimate of its value than a patent. The technical knowledge required is of that character which lies on the borderland of possibilities in the industrial fields, between the common methods of the present and the unknown of the future. An able law professor has happily termed patent law the metaphysics of the law. The subtleties and refinements of patent law are such that it forms a branch of the law by itself. It therefore behooves the inexperienced in patent matters not to venture into investments of this class unless they can avail themselves of the services of those skilled in such matters or feel assured that the patent property is in hands competent to manage it.

Early in my Office career I learned that there was nothing like getting alongside the inventor in his workshop to get a clear and broad idea of the problems that confronted him and the extent to which he had solved them. I was sent to Port Richmond in the suburbs of Philadelphia to see what was being done by a prominent inventor in the way of unloading, storing and reloading anthracite coal in the Philadelphia & Reading R. R. yards. The yards covered six or eight acres, were covered with tracks and surrounded by a high board fence. Normally, a small army of men with shovels and wheelbarrows attended to the loading and unloading of the cars. The coal was scattered all over the yards. It cost the P. & R. 50 cents a ton to handle the coal delivered in the yards. The men struck for higher wages. Armed guards were put in charge of the yards, but no coal could be handled. Several weeks went by. The opportunity was ripe and the inventor went to the railway officials and made the proposition to handle all the coal in the Port Richmond Yards more rapidly than before for ten cents a ton, with the further suggestion that they could sell about three-quarters of the yard acreage for the reason that it would not be needed for the storage

and handling of the coal; furthermore that the handling of the coal would only require about one-half a dozen men. This sounded like an Aladdin's lamp tale to the Philadelphia & Reading people, but they said "go ahead and try it." When I went into the yards and climbed upon a conical pile of coal seventy feet high and watched the machinery in operation it came upon me with full force how different this was from reading applications descriptive of the apparatus by which these results were accomplished. The coal-handling apparatus proved a complete success and a year or two ago a Philadelphia paper rated the inventor as one of their most highly esteemed citizens and a millionaire. One of the method patents affording probably the best protection the inventor received included claims very accurately descriptive of the action of the wind in forming sand dunes or snow banks and also the action of rivers in forming sand bars. However, the action of forces in nature did not constitute valid references.

About a quarter of a century ago I had the pleasure of making a visit to Mr. Nikola Tesla and the following are some of the notes I made at that time:

The letter of introduction was taken in and presently the "wizard" himself came out to receive us, and a most cordial greeting we received. We were ushered into his laboratory and he at once proceeded to show us some of his apparatus and to explain what he was at in the most enthusiastic manner.

Our attention was first called to a device for "striking an electric blow," *i. e.*, a blow similar to that due to the action of an induction coil. The pole pieces were set about four inches apart and on turning on the current a stream of sparks passed between the poles. Mr. Tesla then stepped to a blackboard and drawing a diagram of an induction coil consisting of the primary and secondary coils, with the interrupter and condenser arranged in parallel. He stated that he found the arrangement in parallel entirely unnecessary and that the same results could be attained by the arrangement of the coils, condenser and interrupter all in series. By this means he could make a small machine costing not more than thirty-five or forty dollars, which was capable of producing all

the results of an induction coil which would cost twelve hundred dollars.

At the front of the room resting on the floor was an immense coil about 3½ feet high and 4½ feet in diameter. This coil was insulated and had no connection with any circuit outside of itself. The pole pieces of this coil projected upward from it and were about a foot apart. When the attendant turned a switch at the back part of the room, a rapid noisy discharge took place between the poles. The current in this coil was caused by the rapidly alternating electric waves from the circuit or machine at the rear of the room at least thirty feet away, the entire space of the room being alive with energy in the form of alternating waves of electric force changing with a speed of about 12,000 per second. Although standing in the center of the room I was not conscious in any way of the great distribution of power taking place through the space of the room, except as it was manifest through its effect on the circuits in the coils. It appears, as Mr. Tesla stated, that the coils must be made of just the right sized wire, of the proper length, and having the proper resistance in order to be able to respond to a series of waves of a particular force and having a parteiular number of alternations per second. To show this more clearly, Mr. Tesla took a small coil in his hand. This coil appeared like a light hoop about 2½ feet in diameter with a tiny incandescent lamp in its circuit. The attendant at the rear of the room again moved the switch and the tiny lamp began to glow through the responsive action of the coil in the hoop, while the larger incandescent lamp in the circuit of the large coil on the floor was unaffected. The rapidity and strength of the electric waves had been changed by the attendant in the rear of the room.

Mr. Tesla requested us to now join hands with him in the circuit of the small hoop. By slowly turning one of the handles in the hoop circuit the current gradually increased until my wrists and elbows began to jerk.

Mr. Tesla now produced a metallic hoop formed of a single wire about ¼ inch in diameter. This wire hoop had inserted in it at one side a tiny electric lamp. This hoop did not appear to be affected in any way until it

was placed in the same plane with and concentric with the responsive hoop above referred to, when the tiny lamp at once began to glow. The current in the single wire hoop was evidently caused by induction from the concentric surrounding hoop.

Our attention was now invited to the "oscillator" which is shortly expected to make its *debut* in the commercial world. The "oscillator" rested on a brick foundation with a furnace space in it which contained a lot of ashes, although I do not recollect noticing any chimney passing away from the furnace, if it is so intended. At one side of the room a steam pipe passed to the floor and to the "oscillator" which received the steam and converted it into electricity, but how, I was not informed. Mr. Tesla said that no steam packed pistons were used. I did not form any clear idea as to the possible operation of the "oscillator," but was under the impression that a slotted space about 2½ inches wide, which passed transversely across the machine near its middle and at the end of a twin cylinder arrangement was adapted to contain the oscillating part.

The attendants next turned out all the lights and a switch was thrown when a magnificent discharge of minature purple tinted lightning was to be seen and it was accompanied by a loud cracking noise. These discharges radiated in all directions through the air from the pole piece, some of the discharges being four or five feet long. Mr. Tesla stated that he could make these discharges one hundred feet long, but that the discharges we witnessed were as large as were consistent with safety in the room.

Mr. Tesla's latest idea is that of manufacturing fertilizer for land by the use of power. He has discovered how to separate nitrogen from the air and how to combine it with hydrogen, and thus he claims to be able to form ammonia, which, if it can be done economically, would appear to settle the fertilizer question. If this idea should prove fruitful, the question of food production, and real estate values, will undergo a most decided change in the future.

Mr. Tesla lamented the burning up of his laboratory sometime ago for the reason that he had been experimenting with photographs taken with what he then

called "phosphorescent light." In one of these photographs, for example, in his profile view half of his nose appeared to be gone. He thought at first that there was something wrong with the sensitized plates, but was assured that they were all right; then came the report of Professor Röntgen's discovery. It would thus appear that Tesla had produced the Röntgen ray photographs, but owing to other pressing problems and the subsequent destruction of his laboratory by fire, he had not appreciated the reason for the apparent defects of his photographs by the "phosphorescent light."

Mr. Tesla said that in 1882 he was in college with Röntgen and. Padrewski, at Strasburg, I believe, and that he feared unless he accomplished more than he had already done, his early comrades would surpass him on the checkerboard of life.

I call attention to this visit to make it clear that the inventors and manufacturers are glad to have the Patent Office Examiners visit them. I only recall two occasions on which I did not appear to be welcome. One to old locomotive works at Providence, R. I. The manager declined to allow me to go through the works but failed to give the real reason for his refusal. The works were closed up, but at the time I was not aware of it. The second case was at a zinc smelting plant in Jersey City. It appears that a great many smelting concerns are in constant fear that some outsider will get in and steal some of their ideas. It is something like the Washburn-Pillsbury mills at Minneapolis who welcome all visitors except millers who are not allowed to inspect the mills.

I am glad to say that Commissioner Ewing heartily believes in the members of the examining corps availing themselves of ever proper opportunity to visit manufacturing plants in the line of their work.

It is to be hoped that in the near future some arrangements may be made whereby a considerable number of the examining corps may be enabled to visit the manufacturing plants of this country. While at the Master Car Builders' convention I noted the registration of 21 employees of the Interstate Commerce Commission.

The almighty dollar is usually supposed to be back of the patent business. That's what keeps the Examiners

here and that is what the inventor is usually after. I have, however, run across a few inventors who apparently were not after prospective wealth. One inventor who has been dead for many years always insisted he was working entirely from philanthropic motives. His big idea was conservation of supplies of food products for times of famine and future generations and his great ambition was to accomplish something along that line so that his name would go down in history as one of the great men. The most crushing blow of his life came from the poor people whom he was so anxious to help. At the cost of $20,000 he had constructed a pneumatic lighter for unloading wheat from vessels at Buffalo. The stevedores would not allow it to be used.

A Kansas man wanted a patent for the reason that it might improve the social status of his family and incidentally strengthen him in his campaign for the mayoralty at the next election.

A friend of mine formerly employed as a draftsman in the Navy Department took out some patents with the idea of giving him a better standing as an expert on naval construction.

A clergyman in Mississippi uged the allowance of his application for a car coupler on the ground that its adoption by the railroads would save many valuable lives and he would thus have further opportunity to save their souls.

Some patent attorneys have urged the allowance of their cases because they needed the money. One New York attorney insisted that his case should be allowed in order to save his life. The attorney had promised the Italian applicant a patent on a near-kin to a perpetual motion machine for turning a peanut roaster and said he was afraid of a stilleto if he didn't get a patent. His life was saved.

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Considerations Appertaining to the Institution of Interferences

A paper read January 11, 1917, before the Examining Corps of the United States Patent Office

BY

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Considerations Appertaining to the Institution of Interferences

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Interference proceedings in the Patent Office are authorized by Section 4904, Revised Statutes. The first sentence of that section provides that:

> Whenever an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, he shall give notice thereof to the applicants, or applicant and patentee, as the case may be, and shall direct the primary examiner to proceed to determine the question of priority of invention.

Three facts referable to this provision are worthy of special notice. These are: (1) That the statute leaves it entirely to the judgment or "opinion" of the Commissioner to determine when an interference exists, without assigning any condition, suggestion or rule for his guidance; (2) that the Commissioner is given no authority to declare an interference unless he shall first be of the "opinion" that an interference does exist; and (3) that whenever the Commissioner is of the "opinion" that an interference exists the statute is mandatory that he shall declare it and he is left without discretion to take any other course.

> Ewing, Commissioner of Patents, *vs.* U. S. ex rel. The Fowler Car Co., 226 O. G., 700.

Acting under this section of the statute, different Commissioners at different times and in different ways

have expressed their views as to when an interference exists. These views are to be found in the Rules of Practice and Commissioners' Decisions. The Court of Appeals of the District of Columbia, which has appellate jurisdiction over final decisions of the Commissioner of Patents in interference cases, has also at various times announced its views as to the conditions under which the Commissioner of Patents should be of the opinion that an interference exists. Finally, the various Federal courts of the country have in a number of decisions in patent interferences arising under Section 4918, Revised Statutes, and in several decisions in equity suits brought under Section 4915, Revised Statutes, set forth their ideas of what constitutes an interference.

With regard to the relationship of interferences arising in the Office to those arising in the courts, Commissioner Duell, in his noted decision of Hammon *vs.* Hart (83 O. G., 743; 1898 C. D., 52), made the following statement:

> The courts have clearly held that the interference proceedings intended and carried on under former Section 16 of the act of 1836, now Section 4918 of the Revised Statutes, is the same as the proceeding contemplated in Section 8 of the same act, now Section 4904 of the Revised Statutes. (Gold and Silver Ore Separating Co. *vs.* U. S. Disintegrating Ore Co., supra.) The difference between the two simply rests in the fact that the forum is different. The Examiner or Commissioner treating the question of interference should put himself in the place of a judge of the United States circuit court. He should in deciding whether or not an interference should be declared treat the applications or the patent and the application the same as though they were both issued patents pending before the court.

There is, however, one difference in the manner in which interference proceedings arising in this Office under Section 4904, Revised Statutes, on the one hand, and those arising in the courts under Sections 4915 and 4918, Revised Statutes, on the other hand, are handled.

This difference, to which I shall presently call further attention, was brought about by a decision of the Court of Appeals of the Sixth Circuit in the case of Palmer Pneumatic Tire Co. *vs.* Lozier (90 Fed. Rep., 732), written just after the decision of Hammon *vs.* Hart.

The Patent Office definition of an interference is given in Rule 93 of the Rules of Practice. The first sentence of that rule reads:

> An interference is a proceeding instituted for the purpose of determining the question of priority of invention between two or more parties **claiming substantially** the **same patentable invention.**

This definition prescribes three important conditions, all of which are essential to the existence of an interference. These conditions comprise the tests of interference and they are: (1) That the parties shall disclose *substantially the same invention;* (2) that this invention common to all shall be *patentable;* and (3) that the parties shall all be *claiming it.*

I desire to notice these three conditions in turn, beginning with the last.

CLAIMS.

The decision of Hammon *vs.* Hart, *supra*, was written for the express purpose of emphasizing and impressing upon the Office the importance of the condition that all parties shall be *claiming* the same invention before being put into interference. The specific facts of that case were that neither party had made the claims in issue and that all of the claims that one party had made were under final rejection.

From the time of that decision to the present there has been no abatement from the requirement that all parties included in an interference must have claims corresponding to the issue.

A perusal of the decisions in priority cases arising under Sections 4915 and 4918, Revised Statutes, develops the fact that the courts of the country in determining the question of interference, follow the same standard as the

Office in so far as the requirement that the parties shall be claiming the same invention is concerned. In Gold Ore Separating Co. *vs.* U. S. Disintegrating Co. (6 Blatch., 307), cited above, the court said "two patents interfere within the meaning of Section 16, Act of 1836, only when they claim, in whole or in part, the same invention." Substantially the same statement is made in Stonemetz Printers' Machinery Co. *vs.* Brown Folding Machine Co., 1893 C. D., 478; 64 O. G., 1135, and Nathan Co. *vs.* Craig, 1892 C. D., 280; 58 O. G., 1093. The ruling in Donner *vs.* The American Sheet & Tin Plate Co., 160 Fed. Rep., 971, shows how insistent the courts are upon the fact that there shall be claims to the same invention. In that case the structure common to the parties comprised spaced sets of rolls with plate matching mechanism intervening. One party claimed two sets of rolls spaced sufficiently from each other to allow the bars or sheets to be matched between them; the other claimed the same two sets of rolls with matching mechanism in the space between them. Both parties, as above stated, had matching mechanism between their roll sets. The court held that the respective claims of the parties did not *interfere*, but that the broader claim was *infringed* by the construction of the party having the narrower claim.

PATENTABILITY.

The second test or condition of interference prescribed by Rule 93 is that the claims which interfere must cover a *patentable* invention. This condition imports into the subject of interference the question of patentability. As Section 4904, Revised Statutes, is applied by the Patent Office and the Court of Appeals of the District of Columbia, the question of patentability is treated as one which must be settled at least by interlocutory proceedings before testimony is taken as to priority. In the Office this question is considered after the declaration of an interference when raised by motions for dissolution (Rule 122), or motions to amend the issue (Rule 109) or by the primary examiner calling attention to some newly discovered ground of lack of patentability (Rule

128), or by the tribunals of the Office having jurisdiction of an interference calling attention to some ground, which has come to their attention, denoting lack of patentability of the issue or some part of it (Rule 126), and also upon appeals from rulings made under such circumstances (Rule 124). At and after final hearing before the examiner of interferences the parties, however, may not argue the general question of patentability or urge the non-patentability of the issue to one party, as a basis for an award of priority. Anfiero *vs.* Ewing (223 O. G., 1717; 44 App. D. C., 328); Rotter *vs.* Hodgkinson (213 O. G., 1118; 43 App. D. C., 254) and cases cited; Norling *vs.* Hayes (166 O. G., 1282; C. D., 1911, 347; 37 App. D. C., 169) and cases cited.

The Court of Appeals refuses to entertain the question of patentability at all (Hisey *vs.* Peters, 6 App. D. C., 68, 1895 C. D., 349; Slingluff *vs.* Sweet and Spinasse, 230 O. G., 659) and denies that it is a jurisdictional question. Johnson *vs.* Mueser (145 O. G., 764, 29 App. D. C., 61, 1909 C. D., 437). That the jurisdiction of the Court of Appeals is a somewhat limited one in patent matters has been recognized by other courts. See Bernardin *vs.* Northall, 77 Fed. Rep., 849.

Unlike this practice, however, the other Federal courts of the country when called upon to pass upon questions of priority under Section 4915, Revised Statutes, or in patent interferences under Section 4918, Revised Statutes, consider the question of patentability of the subject-matter in issue so fundamental that they frequently raise it themselves and where the claims in issue are deemed unpatentable they refuse to pass upon the question of priority. Examples of such rulings in cases arising under Section 4915, Revised Statutes, are Leslie *vs.* Tracy, 100 Fed. Rep., 475; Hansen *vs.* Slick, 230 Fed. Rep., 627; Hill *vs.* Wooster, 132 U. S., 693. In the latter case Hill had a patent and he had won a judgment of priority in the Patent Office over Wooster. Wooster brought suit under Section 4915, Revised Statutes, to obtain a patent notwithstanding. The answer like the bill set out that the invention was patentable. Both parties were willing that the question of patentability

should be ignored and the case disposed of on a question of priority alone. The Supreme Court of the United States, however, declined to accede to this on the ground that such a determination in favor of the applicant, carrying with it as it does authority to the Commissioner to issue a patent to him for claims of the interference would necessarily give the sanction of the court to the patentability of the invention involved. The invention there in contest was a milk cooling apparatus built very much on the plan of an ordinary family refrigerator. The court of its own motion held the claims in contest to be unpatentable and ordered the bill dismissed.

Consideration of the question of patentability in patent interferences arising under Section 4918, Revised Statutes, was first sanctioned by Foster *vs.* Lindsay (3 Dill., 126) where the question was raised by the pleadings. The practice approved by that decision was shortly thereafter disapproved in the case of Pentlarge *vs.* Pentlarge (19 Fed. Rep., 817) on the ground that the fact of patentability is immaterial to the question of priority which alone is raised by a bill under Section 4918. The decision in the Pentlarge case was followed in many cases down to December, 1898, when the Court of Appeals of the Sixth Circuit reversed the practice of this entire line in the case of Palmer Pneumatic Tire Co. *vs.* Lozier, mentioned above. This latter decision reaffirmed the old practice of Foster *vs.* Lindsay and has since been followed. See Nikola Tesla Co. *vs.* Marconi Wireless Telegraph Co. of America (227 Fed. Rep., 903).

The decision in Palmer Pneumatic Tire Co. *vs.* Lozier, *supra*, says that in a suit in equity under Revised Statutes 4918, to obtain an adjudication between interfering patents, the court is not limited to the question of priority of invention between the interfering patentees. The statute, says the court, necessarily presupposes a patentable invention as the subject-matter of the litigation and if it should appear that neither of the patents in suit is valid, for want of such patentable invention the court is not required to perform the useless task of adjudicating priorities between them, but should dis-

miss the bill and deny the relief prayed for by both parties. And again the decision says:

> We think the court is bound to determine whether, upon identifying the subject-matter of of the interfering patents, the invention therein stated is patentable.

It thus appears that a somewhat different view of the question of patentability is taken by the Court of Appeals of the District of Columbia in priority contests arising under Section 4904, Revised Statutes, from that taken in the courts of the country in similar cases arising under Sections 4915 and 4918, Revised Statutes.

SAME INVENTION.

The remaining condition of interference prescribed by Rule 93 is that the patentable subject-matter which the parties are claiming must constitute *substantially the same invention*. This condition carries into the question of interference the subject of *identity* of invention.

Upon this subject Walker in paragraph 180a says in effect that the rule for ascertaining the identity of the invention or inventions of a plurality of resembling original patents granted to a plurality of inventors is the same as the rule for ascertaining the identity or non-identity of the invention or inventions of a plurality of resembling original patents granted to one inventor, and depends upon whether the claims are coextensive or not coextensive.

Claims are coextensive, Walker says, which cover the same combination of the same number, of the same parts, with the same features, though the functions mentioned in the claims are not coextensive.

Miller *vs.* Eagle Co., 151 U. S., 186; 66 O. G., 845.

Claims are not coextensive, he says, which specify different combinations of parts of a process, machine or manufacture even where some of the parts are in each of the combinations; because the claim which specifies the fewest of those parts may be infringed by what will not infringe any claim specifying more of those parts

(Suffolk *vs.* Hayden, 3 Wall., 315). And two claims are not coextensive where one of them specifies all the features of any or all of the parts of its subject while the other omits one of these features, because the latter may be infringed by processes or mechanisms which lack that feature while the former can not.

> Ryan *vs.* Newark Spring Mattress Co., 96 Fed. Rep., 100 (1899).

It is plain that this statement substantially makes the rule applied in double patenting cases the rule to be applied for determining *identity* of inventions.

Commissioner Duell in Williams *vs.* Perl (1899 C. D., 108; 87 O. G., 1607) held that generic and specific claims do not interfere even when based upon the same "species" and the decision in Stonemetz Printers' Machinery Co. *vs.* Brown Folding Machine Co., 1893 C. D., 478; 64 O. G., 1135; 57 Fed. Rep., 601 (1893), is of similar purport.

On the other hand, Commissioner Allen held in *Ex parte* Thompson (98 O. G., 227; 1902 C. D., 6) that

> . . . the Office . . . might properly declare an interference upon an issue which is the claim of one of the parties upon the ground that the corresponding elements in the other party's claim are equivalents, if it were not possible to bring the claims into such form as to avoid all controversies upon the question of equivalency.

The procedure thus suggested as proper has been actually followed in a number of cases where one of the parties has been a patentee, as for example in Read *vs.* Scott (14 Gour., 3-4, Jan.-Feb., 1902), where the broad claim of an application was made the issue and held to interfere with the claim of a patent which differed from it only in that it defined the specific form of an element generically defined by the issue claim and whose full mechanical equivalent was found in the structure of the application upon which the issue claim was based.

In a paper prepared by Examiner Nixon and read at one of these meetings seven cases are specified in which

parties are considered to have claims so far identical as regards subject-matter covered as to meet the requirements of Rule 96, which provides for the suggestion of claims for interference purposes. The essential characteristic of every case is that no party is considered within the rule unless he has in an application or a patent a patentable claim which either reads exactly upon a corresponding claimed disclosure of another party or fails of such reading only by virtue of the inclusion of immaterial limitations.

What constitutes an "immaterial limitation" must in the nature of things depend upon the circumstances of a particular case and be left for determination to the sound judgment of the Examiner. However, Commissioner Allen, in *Ex parte* Thompson (98 O. G., 227; 1902 C. D., 6) quoted from his own decision in Braucht *vs.* Murdock (71 MS. Dec., 492) the following helpful rule:

> An element included in one claim can not be held to be immaterial where there is no corresponding element in the other claim, but where there is a corresponding element, the question whether they are mechanical equivalents must be determined. Where the elements are well known mechanical equivalents in the combination the structures are under the law regarded as substantially the same and there is an interference in fact.

This ruling is entirely consistent with Mr. Duell's decision in Wolfenden *vs.* Price (83 O. G., 1801; 1898 C. D., 87) wherein he clearly recognized that it may be proper to suggest claims with a view to the institution of an interference when the claims presented by the parties themselves are not so drawn as to literally interfere. In that decision he said:

> I do not think that the Patent Office, any more than the courts, is competent, in declaring an interference, to say that an element which an applicant or a patentee has placed in his claim is an immaterial one. A claim may be patentable in the opinion of the Examiner which does not

contain certain limitations, and I think it is within the province of the Examiner when he believes it is necessary for him to declare an interference to indicate to the parties a patentable claim as the issue of the interference which shall omit immaterial elements, and thereby make it unnecessary for the Office to hold that the issue and the claims are different from what they read. . . . I do not mean to be understood as expressing the opinion that identical language must be employed in the claims to every party to the interference; but when different words are employed they must mean and refer to the same things.

The determination of by far the greatest number of questions of identity depends upon what meaning shall be ascribed to the language employed in a claim. There are numerous decisions of the Office and the Court of Appeals of the District of Columbia dealing with this phase of the subject, to a few of which I invite attention.

Commissioner Moore said in the interference of Junge *vs.* Harrington (131 O. G., 691; 1907 C. D., 340):

> . . . In general while applications are pending in this Office the claims thereof will be construed as broadly as the ordinary meaning of the language employed will permit, for reasons stated in . . . decisions in *ex parte* Cutler (C. D., 1906, 247; 123 O. G., 655), Briggs *vs.* Lille *vs.* Cooke *vs.* Jones and Taylor (C. D., 1905, 168; 116 O. G., 871), Podlesak and Podlesak *vs.* McInerney (C. D., 1906, 265; 123 O. G., 1989), and Lovejoy *vs.* Cady (C. D., 1906, 245; 123 O. G., 654).

The Cutler decision by Commissioner Allen contains an exceptionally clear statement of what I understand to be the Office practice. As it is comparatively brief and the subject is of great importance, I quote the entire decision:

> This is a petition that the Primary Examiner be directed to declare an interference.

The case is on its face an extraordinary one. It has been considered here and action taken for the purpose of correcting, so far as possible, what seems to be clear and serious error in the issue and proposed issue of the patents upon certain applications without interference. The petitioner is an applicant for patent. He has made claims found in a patent which was granted to another party upon an application filed during the pendency of the petitioner's application. The Examiner eventually held that the claims were allowable in the petitioner's application, but he has refused to declare an interference, stating that the terms of the claims mean different things in the different cases and that there is no interference in fact.

The Examiner's position as set forth in his letters to the applicant and statement upon the petition has been fully considered and is thought to be untenable. He has construed the plain broad terms of the common claims in view of different specific structures shown by the parties and in view of different specific purposes dwelt upon in their specifications and has imposed upon these claims in the different cases specific meanings which are not required by the language of the claims themselves. The devices of the parties are of the same general character, and the terms of the claims refer to corresponding parts, having to some extent corresponding functions in each case. The claims when properly read are undoubtedly generic to the two disclosures, and an interference should be declared.

I have had occasion in a previous case to condemn the practice of imposing upon claims by construction meanings which are not clearly set forth by their terms. (Briggs *vs.* Lillie *vs.* Cooke *vs.* Jones and Taylor, C. D., 1905, 168; 116 O. G., 871.) In this Office a claim which is broadly drawn will be broadly read. If a narrow meaning is desired, it must be secured by limitation expressed in the claims. No better method is

known for securing the benefits of uniformity and certainty in the construction of claims and at the same time giving effect to the undoubted intention of the parties drawing them than to give invariably to each claim the broadest meaning which can be imposed upon it without violence to the language used therein.

Regarding the proposed issue of two patents with the same claims, which has been proposed here as perfectly proper, I am of the opinion that such a course would be improper, even if the claims had, as the Examiner believed, different meanings in the two cases. The statutes require that parties shall distinguish their inventions from the inventions of others and that they shall particularly point out and distinctly claim their inventions. The definition of the invention and the distinctions between it and the inventions of others should be carried into the claims. Where different parties have the same claims and each has proper foundation for them in his application, either the inventions which these claims represent in the different cases are the same or each party has failed to distinguish his invention from that of the other party. In the latter event the claim is indefinite and ambiguous in each case and should be rejected.

The Examiner is directed to reconsider his action refusing to declare the interference in accordance with the principles set forth herein. The petition to this extent is granted. (123 O. G., 655; 1906 C. D., 247.)

In a recent decision in the case of Kirby *vs.* Clements (216 O. G., 1319; C. D., 1915, 163; 44 App. D. C., 12) the court said:

In an interference proceeding we must give to claims the broadest interpretation which they will reasonably support, and we are not at liberty to import limitations therein to meet the exigencies of a particular situation. (Miel *vs.* Young, C. D., 1907, 561; 128 O. G., 2532; 29 App. D. C., 481;

Lindmark *vs.* Hodgkinson, C. D., 1908, 540; 137 O. G., 228; 31 App. D. C., 612.) The reasonable presumption is that an inventor intended to protect his invention broadly and, consequently, the scope of a claim in an interference proceeding should not be restricted beyond the fair and ordinary meaning of the words. The issue here is that of priority under the claims as drawn, and not of priority under other and different claims.

This ruling was made notwithstanding the fact that in that case the examiners-in-chief had held that the claims in issue would be unpatentable if as broadly construed as the court seems to have construed them. The Court of Appeals has in other cases refused to construe a claim in interference narrowly even to preserve its validity. See Johnson *vs.* Martin (201 O. G., 267; 41 App. D. C., 502); Lacroix *vs.* Tyberg (1910 C. D., 263; 150 O. G., 267; 33 App. D. C., 586).

In an earlier case, Miel *vs.* Young (128 O. G., 2532; C. D., 1907, 561; 29 App. D. C., 481) specific differences of structure and alleged differences of function gave rise to a contention as to the meaning of the word "removable" in a claim calling for a removable reinforcing means in a stone saw. The Court of Appeals said:

> This claim should be given the broadest interpretation which it will support and we should not strive to import limitations from the specification to meet the exigencies of the particular situation in which the claim may stand at a given time. Although Miel is a patentee, if the terms of his claim do not in their ordinary and natural meaning define his invention according to his intent he may apply for a reissue.

The decisions in Miel *vs.* Young, Kirby *vs.* Clements, and *Ex parte* Cutler undoubtedly set forth the practice which should be followed in formulating and selecting claims which are to be suggested under Rule 96 and made the issues of interferences. That the same practice should be followed throughout interference contests, whenever

a question as to the meaning of a claim in issue arises for determination, seems to be a logical conclusion and a fact fairly well settled by decisions both of the Office and the Court of Appeals. However, as will presently appear, the decisions of the Office and that court are not entirely uniform on that subject.

In this connection may be noted the decision of the Court of Appeals of the District of Columbia in Rotter *vs.* Hodgkinson (213 O. G., 1118; 1915 C. D., 103; 43 App. D. C., 254). In that case the question arose as to the proper construction to be placed upon the term "controlling" as used in claims calling for a governor "controlling" certain valves. In Rotter's device the governor exercised a direct control over the valves; in Hodgkinson's device the governor indirectly controlled the valves by controlling a flow of steam which in turn directly controlled them. The court expressed its own views by remarking that:

> There is no ambiguity in the claims and they are capable of a broad construction, and the court will not read into them a limitation not expressed therein. Had the appellant desired to limit his construction he should have done so in making his application for a patent.

The court, however, declared itself satisfied with the reasoning found in a statement of the decision of the Assistant Commissioner reading in part as follows:

> In such (a) case the proper way to determine whether it was unduly expanding the meaning of the word "controlling" to apply it to Hodgkinson is to find out whether there is any prior art that would limit its meaning. If there is such prior art, such limitation should be put upon this word "controlling" as would free the count from the prior art, but if not, the broadest possible construction should be put upon this word. Of course, as there is no prior art, the rule is to put the broadest construction on this word, and when this is done the counts clearly read upon Hodgkinson.

If the statement last quoted can be reconciled with that of the court in the same case and the other decisions I have mentioned, it is, I believe, *nevertheless too broad* in that it does not seem to be limited to the use of prior art *of record* for the purpose stated. A patent is a contract. Its claims are the specific articles of agreement upon which the minds of the *parties* to it, *i. e.*, the applicant or his representative and the officer of the Office who allows the claims, are supposed to meet. The language employed in the claims is the instrument selected by the parties as a means of defining the matters about which they are in accord. When the language employed is vague, indefinite, or ambiguous or otherwise fails to make plain these matters, and it is too late to amend the fault, it is a natural and proper thing to endeavor to ascertain what the parties using the faulty language understood it to mean. This is common practice in construing all kinds of contracts. In the case of a claim the language of the specification and other claims and the prior art known to those responsible for the language employed may be considered as having a bearing upon the question as to what they had in mind but it is not clear how prior art unknown to these parties can be regarded as having *any* bearing upon that question.

There is also one decision by the Court of Appeals which comes very near to supporting the above discussed statement of the Assistant Commissioner, read in its broadest aspects, in that the construction and meaning of a claim in interference is made to depend upon the question of the patentability of the claim over prior art which formed no part of the record of the patented application from which the issue of the interference was drawn. In Rice *vs.* Shutte (180 O. G., 604; 38 App. D. C., 175) the court said:

> The invention is defined broadly by the issue. Courts will narrow the construction of a claim where it is necessary to preserve its validity and in this proceeding we must assume that the issue is patentable—but limitations not called for can not be read into a claim to save it from destruction. Although the devices of the respective parties are specifically different, they are

> generically the same. The language of the issue, while broad, we think can be applied specifically. The only question in the case is whether the means for causing the dropping of appellee's device can be termed a "breakdown connection."

The court then goes on to point out that the appellant first used the term "breakdown connection" and that it aptly defines his invention which is specifically quite new, while the term reads with more difficulty on the appellee's device, which is specifically very similar to three prior patents, none of which were mentioned in appellant's application. The court concludes its opinion by saying:

> To read the issue . . . on to appellee's device, where the question of patentability is exceedingly close, would be to give him something strongly anticipated; while confining it to appellant's invention, we have an easy application of the issue to a device distinctly novel . . .

and they award priority to the appellant for that reason.

An investigation of the decisions of the courts of the country in priority cases arising under Sections 4915 and 4918, Revised Statutes, convinces me that there is no real difference of standard followed from that recognized by the Office and its Court of Appeals in determining questions of *identity* of invention in interference contests. There are relatively few court decisions going into this subject. Of these the leading ones under Section 4915 are Butler et al. *vs.* Shaw (21 Fed. Rep., 321) and Christie *vs.* Seybold (55 Fed. Rep., 69). Under Section 4918 there are Adamson *vs.* Dedrick (Fed. Cas. No. 74), Gold Ore Separating Co. *vs.* Disintegrating Co. (6 Blatch., 307), Simplex Railway Appliance Co. *vs.* Wands (115 Fed. Rep., 517), General Chemical Co. *vs.* Blacknore (156 Fed. Rep., 968), Holliday et al. *vs.* Pickhardt et al. (29 Fed. Rep., 853), Donner *vs.* The American Sheet & Tin Plate Co. (160 Fed. Rep., 971) and Palmer Pneumatic Tire Co. *vs.* Lozier (90 Fed. Rep., 732). Perusal of these decisions will show that there is a uniform tendency to see to it that the parties have and claim

in substance the same subject-matter and that the courts talk rather more about prior art and equivalency than do the decisions of the Commissioners and the Court of Appeals, but if the facts of the cases decided be carefully examined, it will be found that the rulings made run closely parallel to those made by the Office and its Court of Appeals.

Rules of Construction Applied in Infringement and Interference Cases Not Identical.

In infringement suits the courts sometimes follow rules of construction which they will not themselves apply in interference contests. Such rules are ill-suited to interference practice in the Patent Office. In Donner *vs.* American Sheet and Tin Plate Co., *supra*, p. 4, there was a bill asking that a patent be canceled under Section 4918, Revised Statutes, because it interfered with another patent and also praying that the latter patent be held infringed by the construction covered by the former. The court said:

> To make out a case under Section 4918 of the Revised Statutes . . . there must be actual conflict and not mere infringement. . . . And in determining whether there is an interference within the meaning of the statute the court can not go beyond the claims as to which this is charged, so as to consider the patent as a whole. . . . Critically analyzed, Donner simply calls for a matching pass or space in which to match while Bray declares . . . for matching mechanism or means for effecting the matching, without more. However closely they (the claims) may thus approach each other, patentably considered they are not the same, the one being directed to a place where matching may be done and the other to the means for bringing it about. It may be that, having regard to the scope as disclosed by the specifications, matching mechanism is to be read into Donner's claim. . . . But taking it as it stands, as at present we must, while the fact of matching is no doubt involved in it,

> the same as in the claims of Bray, each is concerned with a different phase which on an application to cancel is to be regarded as distinct.

It was in reference to such a rule that Commissioner Ewing said, in Fond *vs.* Miggett (223 O. G., 649):

> If an infringer's use includes a specific feature which is essential to patentable novelty and is not recited in the claim, the defect is sometimes cured by construction. (Fowler & Wolfe Mfg. Co. *vs.* McCrum-Howell Co., 215 Fed. Rep., 905.
>
> In interference proceedings, however, more exact definition is demanded. Where an independent inventor copies a claim from a patent, the patentee may not rely upon a difference of structure not recited in the claim to escape a judgment of priority. If he were permitted to do so, he might win an interference proceeding on a narrow construction and yet would be free in suits upon his patent to contend for a broad construction.

Another familiar rule constantly applied by the courts in infringement suits is seldom, if ever, applied in interference contests in the Patent Office and the Court of Appeals of the District of Columbia. This is the rule that the range of equivalents accorded protection under a patentable claim is determined not alone by the scope of the terms of the claim but also by the state of the prior art at the date the invention is made. If a court in ruling upon an infringement suit finds that the result attained by the invention is a wholly novel one, never having been attained before, the invention is regarded as a pioneer, the terms employed in defining it are given a liberal construction and a relatively wide range of equivalents is accorded. If the result is old but has been attained in a radically new way, a decidedly narrower range of equivalents than in the preceding case, but one pronounced by the court to be fairly liberal, is accorded. If, however, the invention happens to be a mere improvement upon a previous invention for attaining an old result, the range of equivalents accorded is

extremely narrow and frequently little or nothing beyond the specific device, although the claim construed may be fairly broad in terms.

In the Patent Office and the Court of Appeals of the District of Columbia the rule of construction previously discussed prevails, viz., that a claim broadly drawn will be broadly read under all circumstances, including interference. This is entirely consistent with the theory under which claims are presented, examined and allowed. It is the practice of applicants to demand as broad claims as they can possibly hope to obtain and a whole line of decisions, of which *Ex parte* Weaver (81 O. G., 967; 1897 C. D., 165) is one, announces the doctrine that:

> It is the policy of the Office to allow applicants to claim their inventions as broadly as possible in view of the state of the art.

The result is that in the Office every claim is construed and regarded as if it covered a pioneer invention to the extent that it defines patentable novelty. The language and history of an application and the known prior art determine the terms of a claim before it is allowed and the terms of a claim determine the range of its equivalents after allowance. This rule at once affords a simple key for ascertaining the meaning of a claim and the most reliable means for fixing upon a claim the meaning it is intended to permanently carry. It tends to make every claim express in plain language exactly what it covers, as every patent claim ought to do. However, the usefulness of this rule depends upon the ability of the Office to restrict it within the limits prescribed, viz., that the reasonable, natural, unrestrained meaning shall be ascribed to terms employed. It is occasionally charged that the application of this rule, unmodified in its effects because unaccompanied by an application of the somewhat arbitrary rule of range of equivalents as applied by the courts in infringement cases, has resulted in throwing into interference parties whose specific inventions are so different, and of so limited a character, in view of the state of the prior art, that no court would rule that the party who prevails is entitled to hold the defeated party an infringer.

Generally speaking, the resources of the officials of the Office have sufficed to avert situations of that character. An Examiner, who has before him a claim couched in terms so broad as to read fairly upon two or more forms of invention which are specifically so different that he believes that under the circumstances no one of them would be held to be an infringement of the claim if patented to cover the other, can, with the aid of the prior art, force a requisite limitation into the claim, and thereby render a distinct service to the parties, the Office and the public.

But there are many cases where it is extremely uncertain whether a claim will be infringed by another construction. The answer can not be surely given in advance of an actual trial. Here the allowance of a claim to be followed by interference seems the only satisfactory course. In a recent case of this kind where the issue was a broad "means" claim, there was an earnest contention that the inventions of the parties were so different that the interference should be dissolved. Commissioner Ewing in an unpublished decision, which may be found in 120 MS. Dec., 369, refused to dissolve the interference saying:

> Doubtless no interference should be declared excepting with respect to subject-matter which, in a suit on one of the patents, would be held to be an infringement. But it is believed that the practice of the Office will never be in entire accord with this theory, for the question of prior inventorship, while closely analogous to the question of infringement, is not identical with it; and an attempt on the part of the Office to grant patents without giving notice to rival claimants, on holdings that the patents, when granted, would necessarily be so limited by construction of the claims that no infringement would be found, would, I feel sure, meet with general condemnation.

INSTITUTION OF INTERFERENCES WITHOUT ERROR NOT ALWAYS A SIMPLE MATTER-- SERIOUS CONSEQUENCES OF AN ERROR ILLUSTRATED.

Despite the utmost precaution, interferences which prove to be unwarranted are sometimes instituted. Law Examiner Henry, with feelings ill-concealed, tells me about them only too frequently. For the close of this paper I have reserved a single illuminative example which arose so long ago that no one now living is likely to have had anything to do with it. I shall state it at some length because it illustrates a number of points to which I have referred and also the serious consequences of a mistake in starting an interference. The case is that of Butler et al. *vs.* Shaw (21 Fed. Rep., 321), hereinbefore mentioned. It was a long and bitterly contested interference in the Office, afterwards carried into the Federal Courts under Section 4915.

The inventions of both parties related to milk and cream separators.

Shaw had a can with a long telescopic tube extending up inside it from a stop-cock controlled exit near the bottom. By means of a graduated scale, an indicator and a sight glass Shaw could adjust the height of his interior tube so that all the cream could be drawn off, leaving only the milk in the can.

Butler had a can with a faucet rotatably mounted about an arbor or center pin near the bottom and a sight glass running along the side whereby he could ascertain the depth of the cream and adjust the discharge opening of the faucet accordingly so that all the milk could be drawn off, leaving only cream in the bottom of the can.

Shaw had a patent for his device with the following claim therein:

> The herein described milk-can, *a*, for raising cream, in combination with the telescopic tubes, *d*, *f*, the graduated scale, *g*, and the indicator, *h*, as and for the purpose set forth.

Butler had an application for his device and claim 1 therein read as follows:

> A milk vessel, having an adjustable faucet that can be set to automatically discharge any predetermined quantity of milk, to leave in the vessel a certain quantity of cream, and provided with a glass pane to ascertain the degree or place of adjustment of the faucet.

The Examiner rejected Butler's claim on Shaw's patent. Butler asked for an interference and the Examiner instituted it upon the following claim as an issue:

> A can for milk and cream separation, having an adjustable automatic discharge faucet, and a transparent pane by which the place or degree of faucet adjustment may be determined.

No question was raised as to the propriety of reading this claim upon both devices.

At the suggestion of the Examiner (Shaw having died) Mrs. Shaw filed an application for reissue of the Shaw patent, and inserted a new claim in the words of the interference issue. The interference was then continued and decided in favor of Shaw by the Examiner of Interferences. On appeal, one member of the Board concurred with the decision below, but the majority held that the reissue application had materially enlarged the scope of Shaw's claim, and had brought in objectionable new matter to make a conflict when none existed in fact, between the two devices; that Shaw's other claims covered his real invention and all that he was entitled to; that Butler's first claim was limited to the device which he had invented, and in no way trenched upon the invention of Shaw; that Shaw's device was for separating cream from milk, leaving the milk in the can, and could not be used to draw off the milk and leave the cream; and Butler's device was for separating milk from cream by drawing off the milk at the bottom, leaving the cream in the can, and could not be used to draw off the cream and leave the milk; that the two devices were mechanically different, having no feature in common, except the glass panes and the indicators, which were well known, and

not patentable by either; that an interference had been declared and the parties had been contending, on a matter which one had not claimed and which neither was entitled to; and therefore recommended that the interference be dissolved and the case remanded to the Primary Examiner, with instructions to reject Shaw's new claim and allow the parties to take patents on their other claims, unless some good reason could be shown for rejection on further examination.

From this decision, Mrs. Shaw appealed to the Commissioner, who said in part:

> Priority of invention is the only question to be determined. While it is true that the devices of the respective parties are different, in principle they are the same, and both are within the terms of the issue.

He awarded priority to Shaw.

At that time there was no appeal to a court from the decision of the Commissioner in interference cases. Consequently, in view of his decision, the reissue was granted to Mrs. Shaw containing the new claim which had been the issue of the interference. Butler's original claim above quoted which the Examiner had held to interfere with the issue claim was rejected in view of the decision of the interference adverse to Butler. Butler asked for reconsideration and amended his application by adding for the first time a claim in the words of the claim of the issue of the interference. Both of Butler's claims were now finally rejected. On appeal by Butler the Board said:

> We will *pro forma* affirm the action of the Examiner, and let the matter go before the Commissioner for disentanglement and adjudication.

On appeal to the Commissioner, the Acting Commissioner took the case and held that:

> The questions presented by these claims are . . . *res adjudicata*, and can not be reopened in an *ex parte* proceeding upon the suggestion of the defeated party. The applicant must there-

> fore be finally rejected, upon reference to the adjudication in the interference case of Butler *vs.* Shaw.

Butler thereupon filed a bill in equity under Section 4915, and the court said:

> The proofs before us clearly show that Butler was the first inventor of the device described in his first claim for drawing off the milk, leaving the cream in the can; that Shaw's invention was limited to the device which he described for drawing off the cream, leaving the milk; that the two inventions differed in mechanical construction and in practical operation; and that neither was broad enough to include both.

The court further expressly held that the proceedings in the Patent Office had been erroneous in at least four respects: (1) the original rejection of Butler's claim on Shaw's patent; (2) the declaration of the interference between Butler and Shaw on an issue broader than either had theretofore pretended to claim, or was entitled to claim; (3) the final decree of the Commissioner awarding priority to Shaw upon that issue; and (4) the reissue of Shaw's patent with a corresponding claim.

The final result was that Butler was held entitled to a patent on his original claim, but not entitled to a patent on the claim in interference, while Shaw was shown to have vainly acquired a reissued patent which, at most, was valid only as to the claims of his original patent and invalid as to the claim corresponding to the issue of the interference.

The entire difficulty was due to the fact that the Examiner had instituted an interference on an issue which was unpatentable because broader in scope than any invention either party had made.

As one reads a decision of this kind he is pretty certain to speculate on how the interference came to be instituted and perchance he may think that he would never make as clear a mistake. Yet he will lose some of his confidence when attention is drawn to the fact that in that particular case a Primary Examiner, a member of the

Board, and a Commissioner of Patents all thought that the interference had been properly declared and that the Examiner of Interferences made no recommendation for its dissolution. These were erring men of another day, but observation of the interference work of the Office during a number of years, coupled with an opportunity to share in it, convinces me that most of us who are their successors have a liberal inheritance of their genius for error.

Realizing the seriousness of this branch of our duties, we shall continue, I trust, even more in the future than in the past, to give to interference problems that careful consideration and patient study which experience proves them to merit.

Familiarity with the rules and decisions bearing on the subject will do much toward ensuring right conclusions in particular cases, and it will always be found that it especially pays to bear in mind those two great unwritten rules which are the implied *addenda* of all other rules. I refer to the golden rule and the rule to use one's common sense.

January 11, 1917.

An Applicant's Statutory Remedies from Adverse Decisions

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BY

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An Applicant's Statutory Remedies From Adverse Decisions

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An applicant's remedies from adverse decisions are many. They comprise, in succession, an appeal from the decision of the Primary Examiner or the Examiner of Interferences to the Board of Examiners-in-Chief, to the Commissioner and to the Court of Appeals of the District of Columbia, which may then be followed by a bill in equity under section 4915, Revised Statutes, in one of the United States district courts and an appeal to the proper circuit court of appeals.

The reasons and circumstances which caused the enactment of laws providing for this elaborate system of remedies are interesting.

The first statute providing an appeal from a decision in a patent application is contained in the Act of 1836, but a brief survey of our patent system as it existed prior to 1836 is instructive and will assist in understanding the system of appeals finally established.

The Act of 1790, creating the patent system of the United States, authorized the "Secretary of State, the Secretary of the Department of War and the Attorney-General, or any two of them, if they shall deem the invention or discovery sufficiently useful and important, to cause letters patent to be made out in the name of the United States, to be tested by the President of the United States." Thomas Jefferson was the Secretary of State while this act was in force. He is said to have inspired it, to have taken great pride in it and to have given personal consideration to every application. It

is related that when an application for patent was filed, he would summon Henry Knox, Secretary of War, and Edmund Randolph, Attorney-General, and that these three distinguished officials would examine the application with great care.

The granting of a patent at this time was quite an event in the history of the State Department where the clerical work of issuing the patent was performed. The law was construed to give this tribunal authority to refuse a patent if the invention did not come up to its standard of usefulness and importance. This tribunal was absolute in its authority and there was no appeal from its decisions. It is recorded that its members scrutinized the specifications and claims so critically and rigidly that most of the applications were rejected. Only three patents were granted during the first year and the total issue before the act was repealed in 1793 was only fifty-five. The severity of their examination and their lack of sympathy with inventors caused great dissatisfaction.

The Act of 1793, repealing the Act of 1790, took away this power of rejection and confided in the Secretary of State, alone, the duty of issuing patents. The certificate of the Attorney-General, however, was required as to the correctness of the forms and the signature of the President of the United States was still necessary. The patent issued as a matter of course if the application was in proper form and the required fee was paid. In other words, the issuing of patents was placed upon a recording or registration basis. This act also created a Board of Arbitration to pass upon interfering applications, one member of which was chosen by each of the applicants and one by the Secretary of State. Their decision was final and if either party refused to go into the arbitration, his opponent was given the patent.

It is recorded that for the twelve years prior to 1802, the entire work of the Patent Office was performed by a single clerk in the State Department and that all of the records filled but a dozen pigeon holes.

In 1802 Dr. Thornton was appointed a clerk in charge of the issuing of patents. Later he was given the title of "Superintendent." He was a man of scientific attainments and is one of the interesting characters connected

with the early history of our patent system. He exercised autocratic control over its affairs for twenty-six years.

Under the Patent Act of 1793 no investigation was made as to the novelty or utility of the invention, the oath of the applicant that to the best of his knowledge the invention was new, being accepted as sufficient. Under this practice, the patentee received his patent with only such assurance as to its validity as he might gain from his own investigation. Necessarily, the patent was of small commercial value. The total number of patents issued prior to 1836 was only nine thousand nine hundred and fifty-seven (9,957).

The Act of 1836 reorganized the Patent Office and inaugurated practically the present system of granting patents only after examination has shown the invention to be new and useful. This change in the patent system introduced by the Act of 1836 is referred to in the Patent Office Report for 1848, page 84, as follows:

> Perhaps the most important feature of this law is that which relates to the examination to which applications are required to be subjected. Prior to its passage the examinations consisted merely in a comparison of the specification, drawings and model, to ascertain that they agreed together and with the claims made; but the law of 1836 required the examination to enter into the questions of novelty, utility, and priority of invention a provision which largely added to the labors and responsibility of the office.

The Act of 1836 made the Patent Office a separate bureau of the State Department and provided a head therefor, designated the Commissioner of Patents. It provided also for a chief clerk, an examining clerk, two other clerks, one of whom was to be a competent draughtsman, a machinist and a messenger.

Section 7 of the Act of 1836 provides, *inter alia*, that when an application is filed

> . . . the commissioner shall make, or cause to be made, an examination of the alleged new invention or discovery; and if, on any such examination,

> it shall *not* appear to the commissioner that the same had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country, or had been in public use or on sale with the applicant's consent or allowance prior to the application, if the commissioner shall deem it to be sufficiently useful and important, it shall be his duty to issue a patent therefor. . . .

The words "sufficiently useful and important" are the identical words that were contained in the Act of 1790. In this respect it is, therefore, a return to the practice under the original Patent Act of 1790. It indicates that if the practice under the latter act had been unsatisfactory, the practice under the Act of 1793 had proved even more unsatisfactory. Instead of the three secretaries of departments, however, it is now the newly created official, the Commissioner of Patents, who was to pass upon the applications. Moreover, to prevent an arbitrary exercise of power certain restrictions were placed upon the authority of the Commissioner and an appeal was provided from his decisions. The system inaugurated by the Act of 1836 remains our system today with but few changes in its essential features. The machinery for carrying it into effect has been expanded and improved in an endeavor to keep pace with the enormous growth of business.

Section 9 of this act fixed the application fee for citizens of the United States and aliens who had resided here for one year, at $30; for subjects of Great Britain, $500, and for all other persons, $300. No further or final fee was required and a rebate of $20 was given if the application was withdrawn after rejection. Section 12 of the Act of 1837 fixed the amount returned to the applicant under these circumstances at two-thirds of the application fee. This schedule of rates remained in force until the Act of 1861 when the discrimination in favor of citizens of this country was abolished and the present schedule of fees was established.

APPEALS FROM ADVERSE DECISIONS OF THE COMMISSIONER.

The Patent Act of 1836 (5 Stat., 117) providing for a Commissioner of Patents and for an examination as to the novelty and utility of the invention, also provided for an appeal from the adverse decision of the Commissioner to a board of examiners. This board was to consist of three disinterested persons appointed by the Secretary of State, one of whom at least, was to be selected "if practicable and convenient, for his knowledge and skill in the particular art, manufacture or branch of science to which the alleged invention appertains." The applicant was required to pay a $25 appeal fee. Each member of the board was to receive in each case a compensation not to exceed $10. Section 8 of the act provided for interference proceedings between pending applications, or a pending application and an unexpired patent, and an appeal from the decision of the Commissioner on priority on like terms and conditions to those mentioned above.

The Act of 1839 (5 Stat., 353) substituted in place of this board of examiners, as the appellate tribunal, the Chief Justice of the District Court of the United States for the District of Columbia who was to be paid annually out of the Patent Fund in consideration of such duties, the sum of $100. The reason for this change in the appellate tribunal is set forth in the report of the Commissioner of Patents for 1860, as follows:

> But this board, temporary in its nature, its members being appointed for each occasion, and their services inadequately remunerated, experience proved to be an entire failure; and hence, by the eleventh section of the Act of 1839, it was abolished, and the appellate jurisdiction transferred 'to the chief justice of the District Court of the United States for the District of Columbia.' This was a step in advance. It was a decided improvement upon the original tribunal, and gave rise to no complaint, until the year 1850, when Chief Justice Cranch announced to this office that he was unable by reason of the infirmities of age, to discharge the duties imposed upon him by the acts of Congress.

Under the law of 1839 it was the duty of the Chief Justice, after a hearing of the case, to return the papers to the Commissioner together with a certificate of his proceedings and decision which the act directs shall be entered of record in the Patent Office and shall govern the future proceedings in the case.

The Act of 1852 (10 Stat., 75) provided that appeals from the Commissioner of Patents "may also be made to either of the assistant judges of the Circuit Court of the District of Columbia," and further provided "that in case appeal should be made to the said Chief Judge or either of the said assistant judges, the Commissioner of Patents shall pay to such Chief Judge or assistant judge, the sum of $25 required to be paid by the appellant into the Patent Office." This act, giving concurrent jurisdiction to the assistant judges was passed by Congress on account of the infirmity of the Chief Justice.

As stated above, Chief Justice Cranch notified the Patent Office in 1850 that he was unable to hear any patent appeals on account of the infirmities of age. This continued until his death in 1855. The injurious consequences resulting from this state of affairs are set forth in the Commissioner's Report for 1860. It appears that in *ex parte* appeals, the appellant was unable to have his case heard, while in *inter partes* cases, the defeated party by an appeal was able to hold up indefinitely the issuance of the patent to the successful party. Even after the Act of 1852, the defeated party was able to do this by taking his appeal to the infirm Chief Justice. Commissioner Hodges attempted to prevent this injustice by ordering that where appeals had been taken to the Chief Justice, the appellants should transfer them to one of the assistant judges and that all appeals thereafter should be taken to one of the latter judges. Attorney General Cushing, however, held that the Commissioner had no authority to do this and that Congress alone had power to remedy the evil (6 Opinions, Attorney General, 39).

The reason for the change made by the Act of 1852 in the compensation allowed the judges from a hundred dollars a year to twenty-five dollars in each case is not clear. The evil resulting therefrom, however, is set

forth in the annual report of the Secretary of the Interior for 1857, as follows:

> The appellant not only selects the judge who shall try the case, but also pays the fee of twenty-five dollars allowed him. The amount of compensation thus received will depend upon the number of cases brought before him; that number will inevitably be influenced by his course of decision. The judge is thus placed in a position of embarrassment, if not of humiliation, alike to be deplored by himself and the country.

This matter is again referred to by Commissioner Fisher in his annual report for 1869 where he recommends doing away with appeals to the court from decisions of the Commissioner of Patents and advances ten reasons in support of his recommendation. The fourth and eighth of these reasons read as follows:

> (4) The allowance of a fee of twenty-five dollars for each appeal has a tendency to encourage appeals. When there are frequent reversals of the Office, attorneys are inclined to appeal from every decision; and the more frequent the appeal, the larger the aggregate of fees paid to the judge; in this connection, as a simple matter of fact, if may be mentioned that during the administration of my immediate predecessor, forty-two cases were appealed from him to one of the judges, and of these, thirty-eight were reversed and only four affirmed.
>
> . . . . . .
>
> (8) Nine-tenths of the cases appealed involve mere questions of fact, upon which the judgment of the primary examiner is as likely to be correct as that of the Commissioner or judge.

Commissioner Fisher took a conspicuous part in framing the Act of 1870 and it was undoubtedly largely due to his recommendation that the appellate practice from the Commissioner's decisions, while not entirely abolished, was modified by that act.

Section 48 of the Consolidated Patent Act of 1870 (16 Stat., 198) provides:

> *And be it further enacted*, That if such party, except a party to an interference, is dissatisfied with the decision of the commissioner, he may appeal to the Supreme Court of the District of Columbia, sitting in banc.

It should be noted that this act eliminated the appeal from the decision of the Commissioner in an interference case and provided for the hearing of the appeal in *ex parte* cases by the Supreme Court of the District of Columbia, sitting in banc, or general term, this court being the successor of the old Circuit Court of the District of Columbia.

Section 4911 of the Revised Statutes approved June 22, 1874, reads the same as section 48 of the Act of 1870.

The last change in the appellate tribunal having jurisdiction of appeals from decisions of the Commissioner is contained in the Act of February 9, 1893, creating the Court of Appeals of the District of Columbia (27 Stat., 434). This act vested in the above-mentioned court the determination of appeals from the Commissioner formerly vested in the general term of the Supreme Court of the District of Columbia. It also restored the appeal from the decision of the Commissioner in an interference case, which, as noted above, existed prior to the Act of 1870, by providing that "in addition any party aggrieved by a decision of the Commissioner of Patents in any interference case may appeal therefrom to said Court of Appeals."

This court construes the statute as permitting appeals from the decision of the Commissioner in interferences only in cases where there has been a final determination of priority, and holds that its jurisdiction is limited strictly to the question of priority. In numerous decisions it has refused to consider the patentability of the issue in an interference case or to entertain an appeal from a Commissioner's decision on any preliminary or interlocutory matter arising in the interference.

In *ex parte* cases the court holds that the right of appeal is confined to those cases in which an application

for patent has been finally denied by the Commissioner.

The jurisdiction of this court in patent applications is set forth succinctly in its decision, *In re* Fullager, 138 O. G., 259; 32 App. D. C., 222, as follows:

> The jurisdiction of this court to entertain appeals from decisions of the Commissioner of Patents, in proceedings relating to patents, is limited to two classes of cases. The first is where the claims of an applicant for a patent, or the reissue of a patent, after having been twice rejected, have been finally rejected on an appeal to the Commissioner in due course of procedure. The second is where on an appeal to the Commissioner in an interference proceeding there has been a final decision of priority in favor of one of the parties thereto (R. S., secs. 4909, 4910, 4911; Westinghouse *vs.* Duncan, C. D., 1894, 170; 66 O. G., 1009; 2 App. D. C., 131, 132; Allen *vs.* Lowry, C. D., 1905, 643; 116 O. G., 2253; 26 App. D. C., 8, 17, 26; Union Distilling Co. *vs.* Schneider, C. D., 1907, 613; 129 O. G., 2503; 29 App. D. C., 1).

Examination of this decision shows that Fullager was involved in an interference with one Emmet; that in said interference a decision had been rendered by the Commissioner affirming the decision of the lower Patent Office tribunals dissolving the interference upon the ground that Fullager had no right to make the claims of the issue, since his verified showing was insufficient to warrant granting him a reissue patent. From the decision of the commissioner, Fullager attempted to appeal *ex parte* and the court held that it has no jurisdiction to entertain an appeal from a decision of the Commissioner on a motion to dissolve an interference under such circumstances.

In passing upon the question of its jurisdiction the court considers the effect rather than the form of the Commissioner's order or decision from which appeal has been taken. This is set forth in Moore *vs.* Heany (149 O. G., 831; 34 App. D. C., 31), where the court was considering whether an appeal would lie from a

Commissioner's order striking an application from the files, as follows: "A court would look to the substance, the necessary effect and operation of the order rather than to its formal recital merely."

Examination of a few cases will show how this principle has been applied by the court. These cases also show that although the court has indicated in the case of Fullager, *supra*, that its jurisdiction does not attach until after the case has been appealed in succession from the Examiner to the Examiners-in-Chief and to the Commissioner, decisions in the case by the tribunals below the Commissioner have not been uniformly insisted upon.

In the case of *In Re* Selden (164 O. G., 741; 36 App. D. C., 428), the claims had already been allowed by one primary examiner, and the application was ready for issue, subject to some slight amendments. Upon compliance by the applicant with these suggestions the successor of the first primary examiner called the case to the attention of the Commissioner and stated that he proposed to reject three of the twenty-four claims as not patentable. The Commissioner, upon consideration of the application, held it abandoned for lack of sufficient prosecution within the statutory period of two years.

An appeal from the Commissioner's decision was entertained, the court holding that the action of the Commissioner was in effect a rejection of the claims.

A similar holding was made by the court in the case of Mattulath (179 O. G., 833; 38 App. D. C., 497) where the Examiner's holding that an application was abandoned was affirmed by the Commissioner on petition from the Examiner's ruling.

In Cosper *vs.* Gold and Gold (151 O. G. 194; 34 App. D. C., 198), the court dismissed an appeal taken from a decision of the Commissioner dissolving an interference because one of the parties had no right to make the claims of the issue, upon the ground that the decision of the Commissioner was interlocutory and not a final award of priority. After the return of the case to the Commissioner, he set aside his decision dissolving the interference and entered an award of priority. Upon an

appeal from that judgment the court entertained the same and passed upon the question of priority, notwithstanding no decision on the question of priority had ever been rendered by the Examiner of Interferences (Cosper *vs.* Gold and Gold; Cosper *vs.* Gold, 168 O. G., 787; 36 App. D. C., 302).

Townsend *vs.* Thullen (142 O. G., 1116; 32 App. D. C., 575), was a case where the Primary Examiner granted a motion to dissolve the interference as to certain counts on the ground that Townsend had no right to make them. His decision was affirmed by the Examiners-in-Chief and by the Commissioner. An appeal was taken to the court and was entertained, the court holding that the necessary result of the Commissioner's action was an award of priority to Thullen.

In the New Departure Manufacturing Company, *vs.* Robinson (188 O. G., 1056; 39 App. D. C., 504), the Examiner of Interferences directed the attention of the Commissioner to a prior interference and the Commissioner dissolved the interference upon the ground that the question of priority was *res adjudicata* by reason of the final decision in the prior interference. An appeal to the court was entertained, notwithstanding no decision in the proceeding had been rendered by any of the tribunals subordinate to the Commissioner.

In the case of Moore *vs.* Chott (192 O. G., 520; 40 App. D. C., 591), the Examiners-in-Chief reversed the action of the Primary Examiner rejecting the claims of the application. The Commissioner took up the case under his supervisory authority and refused the patent. The Court of Appeals of the District of Columbia held that the Commissioner acted within his authority and that the applicant's remedy was by regular appeal and not by a writ of mandamus. An appeal to the United States Supreme Court was dismissed for lack of jurisdiction (Chott *vs.* Ewing, 215 O. G., 1264; 237 U. S., 197).

In Mann *vs.* Brown (214 O. G., 1026; 43 App. D. C., 457) where an interference was appealed to the Commissioner and he dissolved the interference in view of a reference that applied to the party Mann and entered an order in his application refusing him a patent and

Mann appealed, the court held that the proceeding can not be changed from one statutory class to another and dismissed the appeal.

In Carlin *vs.* Goldberg (236 O. G., 1222) a motion to dissolve on the ground that Carlin's structure was inoperative had been granted by the various Patent Office tribunals. On petition of Carlin the Commissioner changed his decision to one awarding priority to Goldberg on the ground that Carlin had no right to make the claims. The court held that the Commissioner had no jurisdiction to convert an appeal on the motion to dissolve into an appeal on priority. It attempted to distinguish from the Cosper *vs.* Gold case, *supra*, by stating that in the latter case the interference had been tried and was ripe for an award of priority and that the issue of priority turned upon Cosper's right to make the claim, but that in the case at bar a reversal of the Commissioner would operate as a grant of priority to Carlin and Goldberg would be deprived of his day in court on that issue.

No appeal lies from the decision of the Court of Appeals of the District of Columbia on an appeal from the Commissioner of Patents (Frasch *vs.* Moore, 137 O. G., 230; 211 U. S., 1; Johnson *vs.* Muesser, 145 O. G., 767; 212 U. S., 283; sec. 250 of the Judicial Code, and Chott *vs.* Ewing, 215 O. G., 1264; 237 U. S., 197).

APPEALS TO THE EXAMINERS-IN-CHIEF AND TO THE COMMISSIONER.

The first statutory provision for appeals within the Patent Office is found in the Act of March 2, 1861, which provides for an appeal from the Primary Examiners to the Examiners-in-Chief and from the Examiners-in-Chief to the Commissioner. The reasons and the conditions in the Patent Office which led to the enactment of this statute legally creating the lower appellate tribunal and providing for appeals to the Examiners-in-Chief and to the Commissioner may well be considered together.

At the time of the passage of the Act of 1836 creating the Patent Office as a separate bureau of the State Department and for a long time thereafter, the amount of

business transacted by the Office was small and did not require the establishment of an appellate tribunal within the Office although, as heretofore noted, the act did provide an appeal from the decision of the Commissioner. For example, the number of applications filed in the year 1840 was 765 and the number of patents granted, 473. In fact, the establishment of the Patent Bureau by the Act of 1836, with an office force of seven persons, as stated above, was generally regarded as extravagant. At that time the number of applications was so small that the Commissioner was presumed to examine them himself or to have the examinations made directly under his eye by the examining clerk. For a long time thereafter, the amount of work was not too great for the Commissioner personally to supervise it.

The number of examiners did not exceed four until the year 1848, when the force was increased by the addition of two principal examiners and two assistant examiners. During this year the number of applications was 1,628 and the number of patents granted 660. The entire Patent Office was, therefore, about the size of one of the present forty-three examining divisions and the relation of the Commissioner to his examining force at that time is comparable to that existing at present between the principal examiner of a division and his assistant examiners.

The Patent Office was transferred from the jurisdiction of the State Department and made a bureau of the Interior Department upon the establishment of the latter in 1849. For a number of years prior to the establishment of the Agricultural Bureau, the Commissioner of Patents had charge of the collection of agricultural statistics and some of the Patent Office reports in the forties are filled principally with matter relating to agriculture. For some years the duty of registering copyrights was also added to the other duties of the Commissioner of Patents.

By 1853 the number of applications filed annually had increased to 2,673, and the Rules of Practice of the Patent Office for that year, page 16, states:

> It is not often that the Commissioner is able to investigate a case in person, and only in very especial circumstances can he undertake it.

In the Rules of Practice issued February 20, 1854, first appeared the following rule:

> 114. Should there be—notwithstanding these reasons—a second rejection, the applicant may in person, or by his agent, or in writing, as above contemplated, bring the matter before the commissioner, who will, if possible, examine the case in person; but should he not be sufficiently at leisure, it will be referred to a board of examiners.
>
> The decision attained in either of these modes will be final, so far as the action of this office is concerned. The only remaining remedy will be by appeal in those cases allowed by law.

Up to about this time apparently the Commissioner had endeavored to exercise a personal supervision over the actions of the examiners whether they were favorable or adverse to the grant of a patent. The annual report of the Commissioner of Patents for the year 1855, however, contains the following statement:

> The multiplicity of business in the office renders it wholly impossible for the Commissioner to exercise a personal supervision over the decisions in each of the numberless cases presented for official action. When the Examiner reports in favor of granting a patent it is issued without further question or examination.

This annual report for 1855 contains the first suggestion of "the appointment of an examiner-in-chief, whose sole duty would be to review the actions of the present examiners with a view to introducing correctness and uniformity of decision."

Rule 114 of the Rules of Practice of 1854, quoted above, indicates that at this time the business of this Office had become so heavy that it was impossible for the Commissioner personally to review the actions of examiners in all cases brought to his attention and that he instituted a board of examiners to relieve him of some of this work. This board, which was the forerunner of

the board of examiners-in-chief, is referred to in the annual report of the Commissioner of Patents for 1857, as follows (pp. 7-8):

> Whatever might be the capabilities of the Commissioner for physical and mental labor, it would be impossible for him to discharge the administrative duties of his office, and hear, in person, all the appeals brought before him from the decisions of examiners. The usage has hence grown up of referring the investigation of most of these appeals to a board constituted for the occasion, consisting of two or more examiners, who make their report to the Commissioner. As these boards lack permanence, and from necessity, indeed, have been constantly changing without a critical examination of each report by the Commissioner—which is not practicable—uniformity in action and in the assertion of principle can not be maintained. To prevent in future that conflict, which has been so often deplored in the past, it has been recommended that there shall be appointed a permanent board of three examiners-in-chief, who shall be charged with the duty of hearing and determining upon all appeals from the judgment of the primary examiners. Such a tribunal would, no doubt, attain the end sought, and the members of it—should their appellate duties not fully occupy their time—could, by the Commissioner, be assigned labor in the classes requiring such assistance with much advantage to the public service.

In the Patent Office Report for 1858, the Commissioner states (p. 5):

> Since the month of November, 1857, a board temporarily organized, and consisting of three examiners, specially detailed for this duty, have been occupied in the examination of appeals from the decisions of the primary examiners to the Commissioner. During the past year they investi-

> gated and disposed of 535 cases, in most of which they have submitted elaborately prepared reports. The results of their action have been eminently satisfactory, and have commanded, it is believed, the entire confidence of the country.

This matter is again referred to in the Commissioner's annual report for 1860 (p. 6), as follows:

> Previous to the month of December, 1857, it was the practice of the Commissioner to hear appeals in person from the adverse action of the examiners; but it was soon found, from the natural increase of the business of the Office, that this was becoming a physical impossibility; and hence was adopted the alternative of deputing temporary boards of examiners, which, in some measure, relieved the Commissioner of the burden thrown upon him. But the plan soon developed its own imperfections. Each board had its own principle of action, and, in many instances, this differed from the rules prescribed by the Commissioner. As a corrective, it was at length determined by Commissioner Holt to establish a permanent board of appeal within the Office, whose members, three in number, should be taken from the examining corps, and whose duty it should be to examine all *ex parte* rejected cases, and submit their report and recommendation, as to their final disposal, to the Commissioner for his approval. This board has now been in existence for over three years, and the wisdom of its creation is a matter placed beyond all doubt.

The volumes of the Commissioner's Manuscript Decisions shows that the action of this board was in the form of a report which if satisfactory to the Commissioner, was approved and adopted by him.

The above excerpts from various reports of the Commissioner show that prior to 1861 the matter of ap-

peals to the Commissioner and later the reference of them largely to a board was not provided for by statute, but was a matter of usage or practice that gradually developed in the Office due to its growth and to the consequent inability of the Commissioner to attend in person to all the duties imposed upon him.

The repeated recommendations of the Commissioners finally produced the desired result and Congress provided for the board of examiners-in-chief and for appeals within the Office in section 2 of the Act of March 2, 1861 (12 Stat., 246) which reads as follows:

And be it further enacted, That for the purposes of securing greater uniformity of action in the grant and refusal of letters patent, there shall be appointed by the President, by and with the advice and consent of the Senate, three examiners-in-chief, at an annual salary of $3,000 each, to be composed of persons of competent legal knowledge and scientific ability, whose duty it shall be, on the written petition of the applicant for that purpose being filed, to revise and determine upon the validity of decisions made by examiners, when adverse to the grant of letters patent; and also to revise and determine in like manner upon the validity of the decisions of examiners in interference cases, and when required by the Commissioner in applications for the extension of patents, and to perform such other duties as may be assigned to them by the Commissioner; that from their decisions appeals may be taken to the Commissioner of Patents in person, upon payment of the fee hereinafter prescribed; that the said examiners-in-chief shall be governed in their action by the rules to be prescribed by the Commissioner of Patents.

Section 10 of the act fixed the fee for an appeal from the examiners-in-chief to the Commissioner at twenty dollars but no fee was required on an appeal from the examiners to the examiners-in-chief.

The report of the Commissioner for 1865 contains the following recommendation for a ten-dollar fee on appeal to the examiners-in-chief:

> The Act of March 2 1861, provided for the appointment of a board of examiners-in-chief, whose duty it should be to revise and determine upon the validity of decisions made by examiners when adverse to the grant of letters patent. An experience of five years has fully confirmed the wisdom of the enactment, but it has at the same time demonstrated the necessity of additional legislation upon the subject. While a fee of twenty dollars is charged upon an appeal from the examiners-in-chief to the Commissioner, no charge is made for an appeal from the examiners to the board. It results from this that appeals are taken in many cases without a shadow of ground, and, in contested cases, merely for the purpose of delay. During the year 1865 there were 495 appeals taken to the board, of which number 166 remained undisposed of at the close of the year. If a fee of ten dollars were charged on appeals to the board it would check the number of frivolous appeals, and would be gladly paid by those inventors who are confident of the justice of their claim, as they would recognize it as securing them an early decision in place of the delay of months to which they are now so generally subjected.
>
> After consultation with many inventors, and with solicitors in extensive practice, I am satisfied that the proposed amendment would be received with almost universal favor.

This recommendation resulted in the Act of June 27, 1866 (14 Stat., 76) fixing the fee for such appeal at ten dollars.

The Act of 1870 and the Revised Statutes contain similar provisions and no material change appears until last year when Congress increased the number of examiners-in-chief from three to five (Act of Feb. 15, 1916).

BILL IN EQUITY UNDER SECTION 4915, REVISED STATUTES.

An applicant has still another remedy from an adverse decision; namely, by bill in equity. Provision for this remedy is first found in section 16 of the Act of 1836 which contained certain of the provisions now embodied in sections 4915 and 4918 of the Revised Statutes.

The first portion of section 16 of the Act of 1836 reads:

> *And be it further enacted*, That whenever there shall be two interfering patents, or whenever a patent on application shall have been refused on an adverse decision of a board of examiners, on the ground that the patent applied for would interfere with an unexpired patent previously granted, any person interested in any such patent, either by assignment or otherwise, in the one case, and any such applicant in the other case, may have remedy by bill in equity.

At this time it will be recalled, the appellate tribunal to the Commissioner was a "board of examiners." The Act of 1839, which substituted for this tribunal the Chief Justice of the District of Columbia, also changed and enlarged the remedy by bill in equity. Section 10 of the Act of 1839 provides—

> *And be it further enacted*, That the provisions of the sixteenth section of the before-recited act shall extend to all cases where patents are refused for any reason whatever, either by the Commissioner of Patents or by the Chief Justice of the District of Columbia, upon appeals from the decision of said Commissioner, as well as where the same shall have been refused on account of, or by reason of, interference with a previously existing patent; and in all cases where there is no opposing party, a copy of the bill shall be served upon the Commissioner of Patents, when the whole of the expenses of the proceeding shall be paid by the applicant, whether the final decision shall be in his favor or otherwise.

The provisions of this act are substantially the same as those of section 52 of the Act of 1870 and of present section 4915 of the Revised Statutes, except for the substitution of the "Supreme Court of the District of Columbia" in the latter in place of "Chief Justice of the District of Columbia" in the former. Since the Act of 1893, it is the refusal of the patent by the Court of Appeals of the District of Columbia that entitles the applicant to a remedy by bill in equity.

The remedy provided by bill in equity under section 4915, Revised Statutes, is not an appeal from the decision of the Commissioner or the decision of the court rendered on appeal from the Commissioner's decision, but is an original proceeding in which new or additional testimony may be taken and the case determined upon a new record. Referring to section 4915, Revised Statutes, the United States Supreme Court states in Butterworth *vs.* Hoe (112 U. S., 50; 1884, C. D., 429):

> It is thereby provided that the applicant may have remedy by bill in equity. This means a proceeding in a court of the United States having original equity jurisdiction under the patent laws, according to the ordinary course of equity practice and procedure. It is not a technical appeal from the Patent Office, like that authorized in section 4911, confined to the case as made in the record of that office, but is prepared and heard upon all competent evidence adduced and upon the whole merits.

It appears to be settled that a bill in equity under section 4915, Revised Statutes, can not be maintained until the complainant has exhausted his remedy by appeal (Kirk *vs.* Com. of Pats., 37 O. G., 451; Prindle *vs.* Brown, 136 F. R., 616; Walker on Patents, p. 118). It is not clear that there are now any cases in which a bill in equity to obtain a patent can be maintained until after an appeal has been taken from the decision of the Commissioner to the Court of Appeals of the District of Columbia. Between the years 1870 and 1893, however, the statutes did not provide an appeal from the decision of the Commissioner on priority in an interference case

and the defeated party's only remedy was by this bill directly from the Commissioner's decision. Walker (p. 118) states that "where the Commissioner withholds a patent by virtue of his general supervisory authority, the remedy now under consideration is the only one to which the applicant can resort, for no appeal lies to the Court of Appeals of the District of Columbia," citing in support thereof Hull *vs.* Com. of Patents, 7 O. G., 559; 8 O. G.,.46. In the recent case of Moore *vs.* Chott, 192 O. G., 520; 40 App. D. C., 591, where a patent had been refused by the Commissioner under his supervisory authority even after it had been allowed by the examiners-in-chief, the Court of Appeals of the District of Columbia held that the applicant's remedy was by direct appeal to that court from the decision of the Commissioner.

In view of this case and of the court's decisions in the cases of Selden and Mattulath, *supra*, where appeals were entertained from the holding of the Commissioner that the applications were abandoned, and of the case of Heany and others, heretofore cited, in which the court indicated it had jurisdiction by appeal from any holding of the Commissioner that had the effect of denying an applicant a patent, it appears that the above statement of Walker is not now correct and that the portion of section 4915, Revised Statutes, providing that an applicant may have remedy by bill in equity "whenever a patent on application is refused, either by the Commissioner of Patents or by the Supreme Court of the District of Columbia" is a dead letter so far as the reference to the Commissioner is concerned.

The remedy by bill in equity is a part of the application for the patent and is governed by the rule of section 4894, Revised Statutes, as to laches. In other words, unless the bill is filed within one year from the decision of the Court of Appeals of the District of Columbia, it must be shown to the satisfaction of the court that the delay was unavoidable (Gandy *vs.* Marble, 39 O. G., 1423; 122 U. S., 432; Westinghouse Electric & Mfg. Co. *vs.* Ohio Brass Co., 186 F. R., 518).

The complainant in the suit may be the applicant or the assignee (Smith *vs.* Thompson, 177 F. R., 721; Wende *vs.* Thompson, 191 F. R., 620).

If there is a party whose interests are adverse to those of the complainant, such as an opponent in an interference, he should be made the defendant and the bill filed in the federal district court for the judicial district of which that party is an inhabitant. Where there is no opposing party, the bill must be served on the Commissioner of Patents and filed in the Supreme Court of the District of Columbia unless he consents to accept service and appear elsewhere (Butterworth *vs.* Hill, 31 O. G., 1043; 114 U. S., 129; Illingworth *vs.* Atha, 51 O. G., 803; 42 F. R., 141).

Where the defeated party in an interference proceeding seeks remedy by bill in equity, the question of the patentability of the claims may be raised and will be considered by the court (Hill *vs.* Wooster, 50 O. G., 560; 132 U. S., 693; Richards *vs.* Meissner, 155 F. R., 135; Hansen *vs.* Slick, 216 F. R., 164).

The court is without authority under section 4915 to enjoin the Commissioner from issuing a patent to the successful party in an interference proceeding (Illingworth *vs.* Atha, 42 F. R., 141), and it is the practice of the Patent Office not to withhold the patent to the successful party pending the determination of a suit in equity under section 4915, Revised Statutes (Sargent, 12 O. G., 475; Wells *vs.* Boyle, 43 O. G., 753; Dunbar *vs.* Schellenger, 128 O. G., 2087; McIntyre *vs.* Perry, 169 O. G., 943).

An appeal lies from the decree of the Supreme Court of the District of Columbia to the Court of Appeals of the District of Columbia or from a federal district court to the Court of Appeals of the same judicial circuit in cases under section 4915, Revised Statutes, as in other equity cases. Formerly an appeal could be taken to the United States Supreme Court as shown by the fact that that court entertained jurisdiction in Gandy *vs.* Marble, 39 O. G., 1423; 122 U. S., 432; Hill *vs.* Wooster, 50 O. G., 560, 132 U. S., 120, and Morgan *vs.* Daniels, 67 O. G., 811; 153 U. S., 120. In Durham *vs.* Seymour, 74 O. G., 1731; 161 U. S., 235, the Supreme Court held that the Acts of March 3, 1891, and of March 3, 1885, respectively, did away with appeals of this kind from the circuit courts and the Supreme Court of the District of Columbia.

The Judicial Code, Act of March 3, 1911, continues the practice of *not* permitting appeals in such cases to the United States Supreme Court.

As shown by this elaborate system of remedies, the patent laws are, as stated in one court opinion, supremely indulgent to the claims of inventors. Various Commissioners, and others, have recommended doing away with some of these remedies and appeals, both within and without the Office.

In view of the expense to which a defeated party in an interference proceeding may subject the successful party and of the length of time during which it is possible to prevent him from receiving his patent; also of the long period an applicant may keep his rejected application alive, much may be said in favor of limiting the number of remedies. A discussion of the subject, however, would unduly extend this paper.

January 18, 1917.

DOUBLE PATENTING

With Relation to Co-Pending Applications

A paper read January 25, 1917, before the Examining Corps of the United States Patent Office

BY

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Double Patenting

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When an inventor has two or more co-pending applications disclosing patentable subject-matter, the Office must be careful not to allow two applications to go to issue, both claiming the same invention.

In 1894 the Supreme Court held two patents to be for the same invention in *Miller* vs. *Eagle Mfg. Co., 151 U. S., 186*, 66 O. G., 845; and after reviewing numerous decisions laid down the following broad rules relating to this class of cases:

> "The result of the foregoing and other authorities is that no patent can issue for an invention actually covered by a former patent, especially to the same patentee, although the terms of the claims may differ; that the second patent, although containing a broader claim, more generical in its character than the specific claims contained in the prior patent, is also void; but that where the second patent covers matter described in the prior patent, essentially distinct and separable from the invention covered thereby, and claims made thereunder, its validity may be sustained.
>
> "In the last class of cases it must distinctly appear that the invention covered by the later patent was a separate invention, distinctly different and independent from that covered by the first patent; in other words, it must be something substantially different from that comprehended in the first patent. It must consist in something more than a mere distinction of the breadth and scope of the claims of each patent. If the case comes within the first or second of the above classes, the second patent is absolutely void."

As will be later noted, the foregoing rules were much broader than required by the case under consideration.

However, the rule is clear and definite, not ambiguous or subject to two interpretations. The court definitely stated that no patent can issue for an invention, actually covered by a former patent, especially to the same patentee, although the terms of the claims may differ; that the second patent, although containing a broader claim, more generical in its character than the specific claims contained in the prior patent, is also void. It must consist in something more than a mere distinction in the breadth and scope of the claims of each patent.

The cases to be discussed may be divided into the following classes: (1) Where the patents contain claims that cover the same invention, but are not in the same form, as process or method and apparatus or article claims. (2) Where the claims are in the same form, but differ in scope. (3) Where the claims in one patent are combination claims and the claims in the other patent are drawn to an essential element of that combination.

Mosler Safe & Lock Co. vs. *Mosler, 127 U. S., 354,* is an example of the first class of cases. In this case the applicant obtained a patent for an article and later, on a co-pending application, obtained a patent for a method of making the article. The Supreme Court held the article claims in the first patent and the method claimed in the second patent to be for the same invention, 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, the inventor can not afterwards, on an independent application, secure a patent for the method or process of producing 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 the second patent."

In Dayton Fan Motor Co. *vs.* Westinghouse Electric & Mfg. Co., 118 Fed. Rep., 562, C. C. A., two applications were filed the same day—one for a method and the

other for the apparatus. Later an application was filed for a special means for carrying out the method disclosed in the method application. The court held that the last filed application which was first to issue, did not invalidate the later issued patents, and that the method and apparatus patents were not for the same invention and both were valid. It is noted that as applicant had filed two applications each disclosing a different means for carrying out the method that the method disclosed could result from more than one form of apparatus. Therefore the first patent did not disclose the only means by which the method could be carried out. In other words, the first patent did not grant him a monopoly on the method.

In Century Electric Co. *vs.* Westinghouse Electric & Mfg. Co., 191 Fed., 350, C. C. A., 8th Circuit, applicant filed an application for an apparatus and process. He later divided out the process and filed a second application therefor in accordance with old Rule 41. The process application was the first to issue. The court held that as applicant had divided out the process claims as required by Rule 41, it was clear that at the time the contracts were made the process and apparatus were believed to be separate inventions. However, it was not clear to the court that the process and apparatus were inseparable. The court thought that an apparatus not the mechanical equivalent of the one patented might carry out the process, in which event the monopoly of the process would not be extended beyond seventeen years, for on the expiration of the term of the process patent anybody would have the right to carry out the process by an apparatus that was not the mechanical equivalent of the one patented.

The case of *Ex parte* Edison, 220 O. G., 1373, was somewhat similar to the Centruy Electric case, with this distinction, that whereas Edison divided out in accordance with old Rule 41, as it existed before Steinmetz *vs.* Allen, the divisional application was not filed until more than a year after Steinmetz *vs.* Allen had modified Rule 41. Furthermore, while old Rule 41, which required division between process and apparatus claims, was in force at the time of filing of the divisional application

in the Century Electric case, the divisional application carved out of the parent Edison application was not filed until more than a year after Rule 41 had been changed. The Commissioner held that in view of the fact that the process and apparatus were so closely related that it was difficult to tell in which the invention lay, the applications should have been prosecuted and issued concurrently or as nearly so as possible. In view of the long delay in filing and the dilatory prosecution of the divisional case, it was held that to grant a patent on the divisional case would extend the monopoly covered by the parent case long since issued. In other words, it would amount to granting a second patent for the same invention.

The second class of cases to be considered is the one wherein the claims are in the same form but differ in scope. The leading decision covering this class of cases is Miller *vs.* Eagle, *supra*. This class of cases had caused the Patent Office considerable trouble before the Miller *vs.* Eagle decision. In Ex parte Holt, 29 O. G., 171, an application was filed in January, 1880, and later another application was filed and called a division. The latter went to issue first. The Commissioner held that there was no line of division between the two cases and said:

> "It is true that the patent is issued upon an application long subsequent to that of the case containing the broadest claims, but I consider the relative dates of the applications of no importance, since a patent has issued upon one of them and the subject-matter is indivisible."

This would seem to be in accordance with the rule later enunciated by the Supreme Court in Miller *vs.* Eagle, but, as will be noted later, the courts have not followed the practice indicated in Ex parte Holt. In Ex parte Ransom, 39 O. G., 119, the Commissioner said:

> "A patent should not issue upon an application which is not properly a division of the subject-matter of a patent to the same party, even though the application upon which the patent was granted was concurrent."

Ex parte Mullen and Mullen, 50 O. G., 837, does not strictly come within the scope of this paper, but the Commissioner in deciding this case laid down the following rules to govern the various classes of cases coming under the head of double patenting: (1) Cases where the various claims differ among themselves only as they constitute different statements of one and the same indivisible invention—cases where, in other words, the lines of division exist as mental figments only, and have no corresponding existence in the concrete subject of invention. In all such cases one application only is permissible, whether pending concurrently or not, because only one patent can be granted for a single invention and a second patent for the same invention under another guise would result inevitably in an illegal extension of the period of exclusive use. (2) Cases where several distinct inventions are dependent upon each other and mutually contribute to a single result. In such cases the several inventions may be included in one patent, or they may be separated into as many patents as there are separate and distinct inventions. In such cases if a patent issues describing all of the mutually dependent inventions and claiming but one of them, a presumption of dedication arises out of the failure to claim what might lawfully have been claimed in the same application. This presumption of dedication is repelled, however, if the inventions not claimed in the patent first to issue are claimed in applications contemporaneously pending in the Office. (3) Cases where the invention described but not claimed is absolutely independent of the invention actually claimed in the first patent. In such a case the invention described but not claimed could not have been lawfully protected in one patent with the independent subject-matter which was actually secured. There can be no presumption of dedication arising out of a failure to claim in a given application what could not have been lawfully claimed in that application, and it is believed that no obstacle exists in such a case to obtaining a patent otherwise allowable upon any application that may be filed before the invention has been in public use or on sale for more than two years and before actual abandonment.

It will be noted that although the first rule is not so definite as the rules laid down by the Supreme Court in the Miller *vs.* Eagle case, it apparently is intended to cover cases in which the difference between the claims of the two applications is a difference of scope or breadth merely—a difference between broad and specific claims. The second rule in Mullen and Mullen is well established and has been uniformly followed by the courts since Suffolk Mfg. Co. *vs.* Hayden, 3 Wall., 315, the leading case on this point.

The third rule in Mullen and Mullen has been uniformly followed since the decision was rendered. It will be noted that the second patent may be granted upon an application filed before the invention has been in public use or on sale for more than two years. In Isaacs *vs.* Speed, 130 O. G., 2717, the Commissioner held that a patent disclosing a process and apparatus and claiming only the process is no bar to the allowance of an application covering the apparatus filed by the same party within two years after the grant of the patent. However, all process and apparatus cases do not come within the third rule of Mullen and Mullen as construed by Isaacs *vs.* Speed, *supra*. The case of Ex parte Edison, 220 O. G., 1373, clearly does not come within this rule, but would probably be classified with the cases coming under the first rule and in any case where there is no doubt that the process and apparatus cover the same invention, the case clearly falls within the scope of the first rule (See Mosler Safe & Lock Co., *supra*, and Ex parte Lord, 50 O. G., 987).

In Ex parte Lord, *supra*, the Commissioner held that:

> "An invention restrictedly stated does not become a different invention when claimed more broadly or generically."

This practice was followed in Ex parte Edison, 54 O. G., 263, in which the Commissioner said:

> "To grant the present application would be to prevent the public from having the benefit of the invention at the expiration of seventeen years from the beginning of Edison's monopoly thereof, and because the statute expressly limits the

> duration of the period of exclusive use of a given invention to seventeen years the prior patents to Edison must be held to be adequate references."

Jones *vs.* Larter, 92 O. G., 383, was the next important case with the exception of Miller *vs.* Eagle, already considered. In Jones *vs.* Larter, the first filed application went to issue with specific claims. A few weeks before the issue of this patent a second application was filed, and was alleged to be for an improvement on the construction shown in the first filed application, and contained no claims broad enough to read on the first filed application. After the first application had issued claims were filed in the second case broader than the claims in the patent. The Commissioner held that the applicant had no right to these claims in the second application and after referring to several decisions cited, said:

> "These decisions and all others on the same line that have been cited have reference to cases in which the broad claims were made in the case first filed, and while that case was held up in the Office without fault of the applicant, another case covering specific improvements on the original device went to patent. They do not apply and were not intended to apply to a case like the present, where the bread claims were not only made in the second application filed, but made therein long after the patent had issued on the first application."

In Thomson-Houston Co. *vs.* Winchester Co., 73 O. G., 2155, the court said:

> "Whatever may be the rule as to cases where the application for the generic patent was filed subsequent to the application for the specific patent, I do not think the patentee should be deprived of his broad patent where the application for such patent was made first and delayed in the Office through no fault of the inventor."

By the above statement the court apparently thought

that the respective filing dates of the two applications might be material.

In view of Miller *vs.* Eagle and Ex parte Holt, Ex parte Ransom, Ex parte Mullen and Mullen, Ex parte Lord, Ex parte Edison, and Jones *vs.* Larter, it would appear that the general rule is laid down by the Miller *vs.* Eagle case heretofore quoted in full. The lower courts, as evidenced by the decisions that will be later referred to, apparently considered that it would be inequitable to hold a patent for the broad invention, resulting from the first-filed application, void on the ground that it was for the same invention as a patent for a specific improvement granted prior to the patent for the broad invention but upon an application subsequently filed. The reason for this is clear. The application for the broad invention may be and often is involved in interference proceedings or appeals and thereby delayed through no fault of the applicant. In any event, an application for a broad invention ordinarily remains in the Office longer than does an application for a specific improvement. It therefore appears that with relation to broad and specific claims merely the rule enunciated in Miller *vs.* Eagle, as construed by the lower courts, should be that *the broad claims should be either in the first application filed or in the first to issue.* The question naturally arises, why is the filing date or the issue date material when the two applications are co-pending? As will be seen later, some courts, under certain circumstances, have held that the filing date is not material (See Century Electric Co. *vs.* Westinghouse, 191 F. R., 350). The answer is that the practice followed in the case of Cleveland Foundry *vs.* Detroit Vapor Stove Co., 131 F. R., 853, and others, is not the rule, but is merely an exception to the rule enunciated in the Miller *vs.* Eagle case.

In considering how the decisions of the courts agree with the rule that the broad claims should be in the first filed or the first to issue, the cases coming under the second class will be divided into the following subclasses: (1) Where the broad claims are in the first to issue. (2) Where the broad claims are in the last to issue but in the first filed. (3.) Where the broad claims are in the last to issue and the last filed.

The following cases come under the first subclass: In Century Electric *vs.* Westinghouse, 191 F. R., 350, an application for an apparatus was filed May, 1888. In December, 1888, a divisional application was filed for a process. In May, 1889, an application for an improved apparatus and process was filed. In January, 1891, the last filed application matured into Patent No. 445,207, having claims broad enough to read on the apparatus and process described in the first-filed applications. In the improvement patent the inventor expressly disclaimed seeking to cover the process and apparatus covered by the first filed applications. The court said:

> "Conceding that the claims of Patent 445,207 were broad enough if they stood alone to cover the main inventions, they did not stand alone, but were conditioned by the specification which accompanied them. They were for combinations and in the light of that specification the new phase regulating devices specified therein constituted an essential element of each of the combinations there claimed, and did not constitute an indispensable element of the process or of the apparatus described and claimed in the earlier applications. These new devices were improvements on the main inventions, and Patent 445,207 was for these improvements in combination with the main inventions while the earlier applications were for the inventions without these improvements. And the conclusion is irresistible that the parties to these patents never intended that Patent 445,207 should secure, and it never did secure, the same invention as either of the other patents, and that it did not render the latter patents void."

In other words, the court read into the claims of Patent 445,207 the new feature described in the specification but not specifically recited in the claims. When so construed, Patent 445,207 becomes a patent for an improvement of the generic inventions covered by the earlier filed applications, and, when so considered, this case more

properly belongs in the second class of cases, of which Suffolk Mfg. Co. *vs.* Hayden, 3 Wall., 315, is the leading case. It is noted that the court considered it necessary to read the novel element into the claims of the first patent in order to save the later patents from being void on the ground of double patenting.

The following paragraph from the same decision is quoted:

> "Where each of several applications which subsequently ripen into patents to the same inventor describes the same machine and process and the inventions claimed in all the applications, *but no one of the applications claims any invention claimed in any of the others* and they are all pending at the same time the respective dates of the applications and of the patents and the respective dates when the applications were filed are immaterial, and the applications and patents can not be used to anticipate or avoid each other."

The above quoted paragraph states that under the conditions named the filing dates and issue dates of the patents are immaterial, but contains the qualifying statement that *no one of the applications claims any invention claimed in any of the others*. Miller *vs.* Eagle states that it must appear that the *invention* covered by the later patent was a *separate invention* and further, that it must consist in something more than a mere distinction in the breadth and scope of the claims of each patent; and thus indicates that two inventions are not produced merely by the fact that the claims in the respective patents differ in scope. On this point attention is also called to the following quotation taken from the case of Otis Elevator Co. *vs.* Portland Co., 127 F. R., 557, C. C. A., 1st Circuit:

> "Two patents may be for the same invention although the earlier is for a specific machine while the later contains broader claims which embrace both the prior specific machine and others as well."

Considered in the light of the two decisions, it is clear that the quoted paragraph taken from the Century

Electric decision does not violate the rule that the broad claims should be in either the first filed or the first to issue.

In National Hollow Brake Beam Co. *vs.* Interchangeable Brake Beam Co., 106 F. R., 693, C. C. A., 8th Circuit, the only difference between claims in the later patent and claims in the earlier patent was that the claims in the later patent specified an additional function that would follow from the structure disclosed in the earlier patent. The court held that the combination of elements disclosed in the earlier patent plus a function of said combination is not proper subject-matter for a second patent, and therefore held certain claims in the latter patent to be for the same invention covered by claim 2 of the earlier patent. This was not strictly an instance of broad and narrow claims in the two patents. The claims in the two patents were of substantially the same scope.

In Dodge Coal Storage Co. *vs.* New York Central R. R., 139 F. R., 976, affirmed, 150 F. R., 738, two patents were in suit, one filed October, 1899, and the other, a division of the first, was filed December, 1900. The parent case was the first to issue. This patent claimed a certain combination. The second patent, resulting from the divisional application, merely added elements to the combination, that were old, and in fact, formed no part of the invention. The said additional elements were necessarily used with the combination called for by the claims of the first patent. The patents, however, were held to be for different inventions, but were declared to be void on other grounds.

In Welsbach Light Co. *vs.* Cohn, 181 F. R., 122, two patents resulting from co-pending applications were under consideration. The second filed application was apparently not referred to as an improvement on the first filed. The court considered that both of the patents were directed to the broad invention, and that applicant had a right to choose which application should contain the broad claims. The court said:

> "*If he does that in the first patent taken out*, although it may rest upon a later application, and first application is followed by later patents, can it be said that the first is void? I think not."

The court thereby implied that if the application with specific claims only had been taken out first, a case of double patenting might have been made out.

In Victor Talking Machine Co. *vs.* American Graphophone Co., 140 F. R., 860, Circuit Court, N. Y., affirmed, 145 F. R., 350, the second filed application went to issue first with broad claims. The court held that a patent is never invalidated by the fact that the invention claimed in it has been described but not claimed in a patent granted subsequent to the making of the application for the patent first issued.

It is clear that the filing date is not material when the broad claims are in the first patent. Suffolk Mfg. Co. *vs.* Hayden held that the date of issue and not the date of filing determined priority. As will be seen from the cases above cited, the courts have followed Suffolk *vs.* Hayden, and ignored the filing dates in this class of cases.

The class of cases where the broad claims are in the last case to issue, but in the first case filed, will now be considered. The Suffolk *vs.* Hayden case is the leading case in this class. In this case the first application was filed December, 1854. A second application was filed November, 1855, and went to issue in March, 1857. This patent was for an improvement on the structure shown in the first filed application. The improvement alone was claimed and the improvement as applied to the structure shown in the first filed application was also claimed.

In June, 1857, the patentee filed another application for substantially the same structure described and claimed in the first filed application. The last filed application was allowed in December, 1857. The court held that the subject-matter of the patent granted December, 1857, was not surrendered to the public for failure to claim the same in the patent issued in March, 1857, which patent disclosed the subject-matter claimed in the second patent but was for an improvement thereon. It will be noted that the patent in suit was a continuation of the first filed application, and therefore became, in effect, a patent resulting from the first filed application.

In Kinnear Mfg. Co. *vs.* Wilson, 142 F. R., 970, C. C. A., 2nd Circuit, an application was filed April, 1895. A second application was filed April, 1896, and was treated as a continuation of the first filed application. In June, 1895, an application for an improvement on the first filed application was filed and patented September, 1895, the claims therein being limited to the improvement in combination with the structure shown in the first filed application. The patent resulting from the continuing application and containing broad claims was held valid.

In Cleveland Foundry Co. *vs.* Detroit Vapor Stove Co., 131 F. R., 853, C. C. A., 6th Circuit, the patent in suit resulted from an application filed in December, 1888. Later several applications were filed, directed to improvements. The improvement applications were first to issue. In each one of the improvement patents the improvement was described and claimed as applied to the structure disclosed in the first filed application. However, the improvement patents did not refer to the first filed application or expressly disclaim the subject-matter shown therein. The court held that an express disclaimer was not necessary, so long as the said improvement patents were merely directed to the improvements.

In Dayton Fan and Motor Co. *vs.* Westinghouse, 118 F. R., 562, two applications were filed on the same day, one for the method and the other for the apparatus. Later an application was filed for a special means for carrying out the method disclosed in the first filed application. The last filed application was first to issue. The court held that the improvement patent did not invalidate the patents resulting from the first filed applications.

In Thomson-Houston Electric Co. *vs.* Hoosick R. R. Co., 82 F. R., 461, C. C. A., 2nd Circuit, patents 495,443 and 424,695 were in suit. The first filed application was the last to issue, with broad claims. The court followed the rule laid down by Miller *vs.* Eagle and declared certain claims in the later patent to be for the same invention as that covered by certain claims in the earlier patent, and therefore void, although the broad claims were in the first filed application.

In Electrical Accumulator Co. *vs.* Brush Electric Co.,

52 F. R., 130, C. C. A., 2nd Circuit, the court held that the prior issue of a patent for a subordinate invention did not invalidate a subsequently issued patent with broad claims, the application for which was pending in the Office at the time the first patent was issued. In this case the broad invention was covered by the first filed case.

In Thomson-Houston Electric Co. *vs.* Union Ry. Co., 86 F. R., 636, C. C. A., 2nd Circuit, an application was filed in March, 1887, and went to issue in April, 1893. A second application was divided out of the first and went to issue in 1891. The appellees contended that claims 2 and 4 of the first mentioned patent were for subcombinations of the combination claimed in the patent first to issue, for the reason that one of the elements specified in the first patent was not found in the claims of the patent second to issue, and furthermore that if said element was read into the claims, they were not limited to the means employed in the first patent and therefore the claims in suit were not the claims of the first patent. The court held that the element would necessarily have to be read into the claims in suit to make the device operative. Otherwise the alleged combination called for would be a mere aggregation of elements which would not coact unless assisted by some instrumentality not disclosed.

The patent in suit was later reissued and again came before the same court (135 F. R., 759). In the reissue the patentee canceled all reference to the element above referred to and also canceled the same from the drawing. In view of this the court held the reissue to be for a different invention from that covered by the patent first to issue. On review, however, the court held the reissue void for laches in applying for the same.

In Western Electric Co. *vs.* Galesburg Union Tel. Co., 148 F. R., 857, Circuit Court, Ill., two applications were filed the same day, one for a visible test system for telephone switch-boards and the other for an audible test system. A third application was later filed and was directed to an alleged combination of the two systems. The third application was the first to issue. The specification of this patent referred to the prior co-pending

applications and stated that the patent was for a combination of the systems shown therein. Furthermore, all the claims were restricted to the alleged combination of the two systems. The court considered, however, that the alleged combination was not a true combination and that the whole invention in the case resided in the visible test system. By thus construing the claims to be for the same invention as the claims of the patent directed to the visible system alone, the court concluded the latter patent to be void on the ground of double patenting, notwithstanding the fact that the patent in suit resulted from the first filed application. The patent in suit, so construed, was held to be for an essential element of the prior combination patent.

In Westinghouse Electric and Mfg. Co. *vs.* Electric Appliance Co., 142 F. R., 545, Circuit Court, Ill., affirmed Diamond Meter Co. *vs.* Westinghouse Co., 152 F., 704 (C. C. A., 7th Cir.), there were two patents in suit, one covering a method and the other an apparatus. A third patent to the same inventor was issued before, but filed after, the patents in suit, and called for a method. The method recited and claimed in the patent first to issue was more specific and included the method and apparatus claimed in the patents in suit. The court held that:

> "Where an application for a basic patent is pending, the granting to the same inventor of a limited combination patent of which the subject-matter of the basic patent is an essential element does not constitute double patenting."

In Electric Storage Battery *vs.* Buffalo Electric Carriage Co., 117 F. R., 314, Circuit Court, N. Y., affirmed, 120 F. R., 672, the court held that the fact that the delay in the issuance of a patent after filing of the application resulted in an extension of monopoly beyond seventeen years, due to the fact that the improvement patents went to patent before the generic patent did not constitute grounds for shortening the term of the generic patent, where the delay was due to interference proceedings.

In Thomson-Houston Electric Co. *vs.* Ohio Brass, 80 F. R., 712, C. C. A., 6th Circuit, and in Thomson-

Houston *vs.* Winchester Co., 71 F. R., 192, Circuit Court, Conn., and in Thomson-Houston Electric Co. *vs.* Elmira, 71 F. R., 396, the broad applications were first filed but last to issue. In each case the courts held that it was not double patenting.

The class of cases where the broad claims are found in the application last filed and last to issue will now be considered.

To agree with the rule the broad patents should be held void.

The Miller *vs.* Eagle Mfg. Co. case might be included in this class, but in that case there was actually no real difference even in the scope or breadth of the claims in the two patents.

In Houser *vs.* Starr, 203 F. R., 264, C. C. A., 6th Circuit, the claims in the first patent had a limitation not found in the second patent. The court held, however, that the construction shown in the second patent was the equivalent of the structure shown in the first patent. The broad claims in the second patent were held void. The court said:

> "The first patent contained a full disclosure, and having been issued in October, 1901, without reservation of any kind which could preserve the subject for patenting on an application filed several months later, everything shown, and which might have been, but was not, claimed, was abandoned to the public and the claims are invalid."

In Union Typewriter *vs.* L. C. Smith, 181 F. R., 966, C. C. A., 3d Circuit, the original application was directed to improvements in typewriting machines and was filed in May, 1890. Certain claims therein were canceled and filed in a divisional application. On March 15, 1892, the parent case became a patent. One week before that date a third application was filed. This application disclaimed any intention of claiming the pivoted shifting frame which applicant stated was made the subject-matter of the first filed case. In April, 1892, after the first case went to patent, applicant eliminated portions of the specification that disclaimed the subject-matter

above referred to. In July, 1892, appliant added two new claims directed to the pivoted shifting frame, and accompanied the same by a supplemental oath. These two claims were similar in scope to two claims in the patent, but broader. In fact, the two claims submitted were awarded to applicant in an interference proceeding involving the parent case, but were voluntarily canceled therefrom. It therefore appears that the parent case was first to patent with specific claims and that a later filed but co-pending application, alleged to be for an improvement on the parent application, went to patent with claims for the same combination claimed in the parent application but broader in scope. The court held this to be a clear case of double patenting for the reason that the broad claims in the later filed application were for the same invention as the more specific claims in the parent case.

In Morse Chain Link Co. *vs.* Link Belt Machine Co., 164 F. R., 331, C. C. A., 7th Circuit, the first filed application went to issue first. The second application was filed more than two years after the filing of the first application and went to issue about eight months after the first case. Appellant contended that the first filed application was for a specific embodiment and that the application last filed was for the generic invention. The court could not agree to that, but stated:

> "This is not a case in which a patentee, having first made application for a patent for a generic invention, has subsequently applied for patents for specific improvements. This is a case in which a patentee, possessed of an alleged generic idea, elected to first apply for a patent for a specific embodiment embracing the essential feature of the generic idea, and later specifying such essential feature in another specific embodiment, claims that the generic idea growing out of such essential feature, belongs to the later, not to the earlier patent."

The court apparently considered that the filing dates of the applications were material and that the broad claims should be in the first filed or in the first to issue.

The lower court in the Union Typewriter case, 173 F. R., 297, cited the Morse Chain Link case with approval and made the following statement in referring to the Victor Talking Machine case, 140 F. R., 860, wherein the generic patent was last applied for but first to issue:

> "Of course, there is no abandonment by the earlier narrow application in this instance. Had the inventor, however, got his specific patent and later his generic one, it would have presented a very different case."

The same court in the same case also said:

> "It is no doubt true that, where an application in which an invention is expressed broadly is pending at the same time with one upon narrower lines, the taking out of the latter does not preclude the subsequent allowance of the other in broader form. But that, unfortunately, is not this case. Both applications, of course, were pending together; but the one into which the broad claims were eventually brought was the specific and not the generic form, coming in apparently as an afterthought, when the other was already then months out."

The above quoted paragraph taken alone, would appear to mean that it is permissible for the second of two patents, resulting from co-pending applications, to have the broad claims, regardless of the respective filing dates. That such a construction was not intended by the court is clear from the first quoted paragraph and from the following:

> "Undoubtedly there is no double patenting where the broad expression of the invention, although the last to be patented, was granted on an application filed before that for the narrower or specific form. As was well said by J. Townsend in Thomson Co. *vs.* Winchester Co., 71 F. R., 192 (C. C. of Conn.), the inventor is not to be deprived of his broad patent where the application for it was made first and was delayed in the Patent Office through no fault of his."

In Otis Elevator Co. *vs.* Portland Co., 127 F. R., 557, C. C. A., 1st Circuit, the broad claims were in the case last filed and last to issue. In holding this to be a case of double patenting, the court said:

> "To avoid the objection of double patenting, it is not enough to show that the prior patent claims a specific 'machine, and that the later patent contains broader claims, which embrace both the prior specific machine and other machines as well. Two patents may be regarded as for the same invention, though one claims only a specific machine, and the other claims broadly a genus which includes the former."

In Palmer Pneumatic Tire Co. *vs.* Lozier, 90 F. R., 732, C. C. A., 6th Circuit, two patents were before the court in an interference proceeding. Both patentees had a second prior patent for a fabric to be used in the construction of tires. The later patents, in interference, were drawn to the fabric *per se*. The court held both patents as being for the same invention as the prior patents.

The cases last cited, while not conclusive, indicate that the filing dates are material when the broad claims are in the last to issue.

The third and last main class of cases to be considered, wherein one patent is for a combination and the other for an essential element thereof, merges into the other classes already considered.

The Western Electric *vs.* Galesburg, 148 F. R., 857, the Westinghouse Electric *vs.* Electric Appliance, 142 F. R., 545, and the Palmer Pneumatic Tire *vs.* Lozier, 90 F. R., 732, cases have already been considered and will not again be discussed here.

In American Bell Telephone Co. *vs.* National Tel. Mfg. Co., 109 F. R., 976, Circuit Court, Mass., claim 2 of the Berliner patent, 463,569, for a telephone transmitter, was held anticipated by Patent 233,969, to the same patentee, issued on a division of the application that resulted in Patent 463,569. Claim 4 of the prior patent covered a system consisting of the same transmitter in combination with a receiver, but in which such

transmitter performed the same function as with any other receiver. The transmitter of the later patent was an essential element of the alleged combination called for by the prior patent.

In Industrial Mfg. Co. *vs.* Wilcox and Gibbs Sewing Machine Co., 112 F. R., 535, C. C. A., 3d Circuit, the parent application resulted in patent 263,467, and was for a sewing machine combination, claiming as an element a trimmer broadly. Patent 341,790, a division of the parent case, claimed, in combination with any sewing machine, the specific form of trimmer disclosed in the parent case. The court held that the trimming device shown in the parent case was an essential element of the combination claimed therein, and could not be made the basis of a later patent.

In Dey Time Register Co. *vs.* Syracuse Time Recorder Co., 152 F. R., 440, Circuit Court, N. Y., the novel element disclosed in the patent first to issue, resulting from the second filed application, was combined with other old elements working in a given old way, to produce an old result. Claim 1 of the second patent claimed the same novel element in combination with other old elements, operating in the old way, to produce the old result. The court held that if claim 1 of the later patent was broadly construed to cover the construction shown in the prior patent it was void for double patenting.

In Palmer et al. *vs.* Brown Mfg. Co., 92 F. R., 925, C. C. A., 1st Circuit, an application was filed containing claims to a combination and subcombination claims to a mechanical movement. Applicant later divided out claims to the mechanical movement and filed a divisional application therefor. The later case went to patent first. Suit was brought on Patent 308,981, resulting from the parent application. The claims sued upon were combination claims that included the mechanical movement, which movement *per se* was covered by Patent 304,550, resulting from the divisional application. The lower court held the combination patent to be void on the ground that what was claimed therein was simply an application to an appropriate use of what was claimed in the prior patent. The C. C. A., however, reversed the decision, holding that the combination was a separate invention from the mechanical movement and that the

said combination, including the mechanical movement as an element, was clearly patentable over the mechanical movement alone. In other words, the Court held that it would involve invention to apply the mechanical movement to the other elements to make up the combination.

In the last class of cases considered, the filing dates are apparently immaterial, the courts holding a second patent void where a prior patent has issued in which the construction claimed includes the subject-matter of the second patent as an essential element. However, this last class of cases does not involve the subject of broad and specific claims, for while the claims in one patent may include an element or elements not included in the other patent, the said elements are ignored by the courts and the claims in the second patent treated as covering the same subject-matter covered by the first patent.

Although the decisions that belong in the three main classes have been discussed, there still remain a few cases that relate to the subject of this paper, but do not properly fall into any one of the three classes.

The Barbed Wire Patent, 143 U. S., 275; Ede *vs.* Trorlicht, Duncker and Reward Carpet Co., 115 F. R., 137, C. C. A., 8th Circuit; Independent Electric Co. *vs.* Jeffery Mfg. Co., 76 F. R., 981, Circuit Court, Ohio; and Graham *vs.* McCormick, 11 F. R., 859, Circuit Court, Ill., are cases in which the same invention was not claimed in the two patents.

In Badische Anilin and Soda Fabrik Co. *vs.* Klipstein & Co., 125 F. R., 543, Circuit Court, N. Y., the patents issued on the same day.

In Anderson *vs.* Collins, 122 F. R., 451, C. C. A., 8th Circuit, the essential element doctrine was involved but the court held that the first patent failed to disclose the essential element of the patent in suit.

On reviewing the decisions cited and the reasons advanced by the courts, in the cases considered at length in this paper, there appears to be some basis for the requirement that the broad claims should be either in the first patent or otherwise in the application first filed.

January 25, 1917.

NEW MATTER

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

BY

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New Matter

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It was found very early in the development of the Patent System that provision must be made for the admission of amendments to applications for patents. The admission of amendments straightway involves the question how far such amendments should be allowed to change the application as originally filed.

On one hand, it is obvious that a meritorious invention may be made, but the application for patent may be prepared by persons not expert in such matters, and therefore filed in condition not fully complying with the technical requirements of the Patent Office. This consideration is of far greater importance at present than in the early history of the Patent Office, when applications were much fewer, and (in general) less complex in subject-matter.

On the other hand, it is equally obvious that limits must be put upon the right to amend. This would be true even if no rights of any sort were acquired until the actual issue of the patent, for otherwise an unlimited number of inventions might be successively introduced and patented on one application.

According to our present Patent Law, however, the applicant for patent *does* acquire an important right upon the date of his completed application, for he is given this date as that of constructive reduction to practice of the invention. Hence, in justice to the public and to other applicants, he should not be permitted, after filing, to change the application in any way such as to affect the nature of the invention, or as it is called, to introduce new matter.

In the Rules of Practice of the Patent Office, No. 32, Edition of 1870, it is stated that:

> "All amendments of the model, drawings, or specification, in the case of original applications, must conform to at least one of them as they were at the time of filing of the application."

This was repeated in the edition of the following year, with the further statement that—

> "further changes than this can only be made by filing a new application. If the invention does not admit of illustration by drawing, amendment to the specification may be made upon proof satisfactory to the Commissioner, that the proposed amendment is part of the original invention."

In the edition of 1877 this rule was substantially repeated, except that the term "further changes than this" is amplified by "involving a departure from the original invention."

In 1879 this rule, now Rule 69, further states that "the affidavits prescribed in Rule 47 may or may not be sufficient" to prove that the proposed amendment was part of the original invention.

In the present Rules of Practice, of 1916, the rule, now No. 70, is as follows:

> "In original applications all amendments of the drawings or specifications, and all additions thereto, must conform to at least one of them as it was at the time of filing of the application. Matter not found in either, involving a departure from the original invention, can not be added to the application even though supported by a supplemental oath, and can be shown or claimed only in a separate application."

In the case of Ex parte Snyder, C. D., 1882, p. 22, the contention was made by applicant that amendments should be allowed at will before the application is taken

up for examination. This was denied by the Commissioner, who said:

> "This rule, then, (Rule 60) attaches upon the filing of the application, which occurs when the applicant has completed his application, as provided in Rule 31. The application then receives its serial number, and is placed upon the files for examination. It is then an application in full standing, and thereafter amendments must conform with the rules governing the amendment of applications. The time when an application is taken up for examination is a variable and arbitrary date, and depends solely upon the state of business."

The reasons for the prohibition of new matter in an application were considered in decision of the Supreme Court of the United States in Railway Co. *vs.* Sayles C. D., 1879, p. 349. It was there stated:

> "It will be observed that we have given particular attention to the original application, drawings and models filed in the Patent Office by Thompson and Bachelder. We have deemed it proper to do this, because, if the amended application and model filed by Tanner five years later embodied any material addition to, or variation from, the original—anything new that was not comprised in that—such addition or variance can not be sustained on the original application. The law does not permit such enlargement of an original specification, which would interfere with other inventors who have entered the field in the meantime, any more than it does in the case of re-issues of patents previously granted. Courts should regard with jealousy and disfavor any attempts to enlarge the scope of an application once filed, or of a patent once granted, the effect of which would be to enable the patentee to appropriate other inventions made prior to such alteration, or to appropriate that which has in the meantime gone into public use."

The subject of permissible changes to the application is treated in decision of the Court of Appeals of the District of Columbia, Hulett *vs.* Long, C. D., 1899, p. 446. It is there stated:

> "It is a well settled and long established practice in the Patent Office to allow amendments to be made under proper circumstances to supply omissions and defects in the original specification and claims as filed which have occurred by mistake, oversight, or inadvertence, or even the want of requisite skill in the preparation and presentation of the case to the Office, and the making of such amendments should not be allowed to operate to the prejudice of the claim or claims of the applicant if made in due and reasonable time and in good faith. In many cases the necessity for amendments to supply omissions and defects is not discovered until the application and specification have been subjected to the critical examinations of the experts of the Office, and both the statute law and the Rules of Practice contemplate the making of all necessary amendments and alterations to supply defects and omissions in the presentation of the case, and where amendments have been allowed it should be presumed that they were properly allowed and upon satisfactory showing to the Office that it was by mistake, oversight, or inadvertence, or want of sufficient skill in the preparation of the application that the omission or defects had occurred and not by design to present a new and essentially different claim to invention from that described in the original application made for the purpose of overreaching and defeating a rival invention."

In this decision reference was made to decision of Mr. Commissioner Marble in Ex parte Snyder, C. D., 1882, p. 22:

> "He (the applicant) may be permitted, upon proper occasion, to supply suitable connections, to add a spring to a pawl, a handle to a crank, a belt to a pulley, teeth to a wheel, an outlet to a closed receptacle, or other manifest defects or

omissions in features essential to the operation of the invention or to the completeness of the disclosure, and which were caused by a clerical error of the draftsman, or the unfamiliarity of the inventor with official forms. These amendments, supplemental in their nature, may be made as completing the invention imperfectly shown and described. They add to the invention disclosed some part or feature which agrees with the construction and operation already presented."

This naturally leads to the question as to how far an applicant may be permitted to amend in order to remedy an inoperative disclosure. In practice, perhaps this is the most perplexing and embarrassing question that is presented to the Examiner. Applications for really valuable inventions are sometimes filed in a very defective shape. On one hand, the inventor should, if possible, be allowed the benefit of his filing date. In many cases a new application would be barred by public use or foreign patent, and in other cases the inventor dies soon after the filing. Hence the whole invention is lost unless it can be predicated on the original disclosure. On the other hand, if the application clearly fails to show a reduction to practice of the invention, the inventor must take the consequences. He is clearly not entitled to complete his invention after filing, and yet have the benefit of the filing date.

This subject is treated in decision of Mr. Commissioner Allen, Ex parte Willits, C. D., 1905, p. 107. In this case applicant wished to add to the disclosure "a small port or opening" in order to make the device operative. It was stated:

"There is nothing in *Ex parte Snyder* which warrants the conclusion that new matter may be inserted in a case whenever it is done for the purpose of making operative a supposedly inoperative device. New matter is no more admissible for that purpose than for any other purpose. It seems perfectly clear that if new matter were admitted for that purpose, applicants could come to this Office with their applications before perfecting their inventions and before having a

well-defined conception of an operative device, and by subsequent experiments and amendments based thereon so change their applications as to cover inventions made after the applications were filed. The law is well settled that the patent should include only the invention as disclosed in the application as filed. Subsequent discoveries and improvements can not be included therein, whether those improvements are intended to make the device operative or merely to make it perform its functions better.

"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 on allegations of fact not shown by the record.

"In the present case it is by no means certain that the 'small port or opening' referred to in the objectionable amendment is necessary to make the device operative. If that device is now inoperative, it could be made operative in other ways. The applicant should not be permitted to describe at this late date that specific construction, since if it would be perfectly obvious to one reading the original description there is no necessity for the specific description, and if it would not be obvious it clearly includes matter not suggested originally."

A test for new matter was given by the Board of Examiners-in-Chief in Interference No. 38,322, Alger *vs.* Bailey, July 6, 1915. Like all tests of legal questions, this test is more in the nature of a *statement* of the problem than a *solution* of it in any particular case. It is always a matter for individual judgment to determine how an abstract principle bears upon the concrete facts at hand. The quotation is as follows:

> "The real test of new matter is believed to be whether those skilled in the art, reading the original application and drawing with reasonable care and attempting to give effect thereto would naturally make the device in the manner in question."

So far it has been assumed that the change to be made is that of addition or of substitution, which is, in fact, usually the case. It may happen, however, that even the *omission* of elements may involve a departure from the original invention. In *Ex parte Cook*, C. D., 1901, p. 19, claims were rejected on references and the Commissioner held that, by reason of a certain pipe shown, the operation of the device was not different from that of prior devices, and that it did not operate in the manner set forth in argument of the appellant. It was further said that if this pipe were not present, there might be force in applicant's contention as to difference in operation.

Applicant then sought to erase from the specification and drawing all reference to the pipe in question. It was held, however, that applicant had not shown a device omitting the pipe, and consequently had not shown a device which would operate in the manner set forth. To quote from the decision:

> "That pipe completely neutralizes the tendency of the other parts and arrangement of parts to produce the operation and result now described. The omission of the pipe A-1 from the device, therefore, would change entirely the function and operation of the other parts, and virtually produce a new device. In other words, the omission of that pipe from the case would produce a different invention and involve a departure from the original disclosure."

A contrary decision was reached in the case of *Ex parte* Smith and Hoyland, C. D., 1900, p. 176, when certain flanges were omitted in a substitute drawing. It was held:

"No claim is now made to these flanges, and they are not included as an element of any of the claims. The illustration of them is unnecessary since the device is obviously operative without them. No useful purpose would be served by illustrating and describing them, and their omission does not change in any way the function and operation of the other parts of the device. They

> are merely additional and unnecessary elements which may or may not be used, and therefore their omission does not involve new matter."

An important consideration is the bearing of a supplemental oath on the subject of new matter. In decision *Ex parte McDougal*, C. D., 1882, p. 7, it was held:

> "Under Rule 47 an applicant may introduce into his application by amendment a part of the invention originally made which was not incorporated into the application either as part of the specification or claim, if he swears that the matter which he desires to introduce into his application and make a part thereof was a part of his original invention. Under this practice, however, the Examiner will enter the date of the new oath on the face of the file wrapper and change the date of the completion of the filing of the application to agree therewith."

The practice above indicated is now obsolete. The tendency has been to restrict more and more the function of a supplemental oath, and it may in the future be abolished altogether. If admitted or required, it has no effect on the effective date of filing, and according to present Rule 70, it affords no ground for the introduction of new matter.

Hitherto it has been assumed that the disclosure is that of the description, drawing, and model, if any. It must further be considered what basis for disclosure is furnished by the *claims*. Judicial decisions upon both sides of the question may be found, as in the following instances:

In the case of *Ex parte Gugler*, O. G., 160, p. 775, an original claim was not objected to by the Examiner as indefinite, but was objected to on the ground that it suggested a variation not disclosed in the original specification and drawings. It was held:

> "Either the objection is unfounded or the claim is sufficient basis for an amendment to the showing to make it correspond with the modification suggested in the claim."

A different conclusion was expressed in decision of the Commissioner *In re Heany*, O. G., 171, p. 983. In that case the entire original specification was removed, except two claims and part of a third. It was held:

> "A claim alone, disconnected from its specification, is a most uncertain thing, and can not constitute a just criterion for a specification or written description, and can not, therefore, be rightly used as a foundation upon which a specification can be erected."

Everything relating to new matter in an original application is equally applicable to a divisional application thereof, which depends upon the disclosure of the original, and has the benefit of the original filing date. This was formerly held to be true of continuing applications also, which were held to lose their right to be so considered if they contained anything technically involving new matter. A change of procedure in this respect was occasioned by decision of U. S. Court of Appeals, D. C., Field *vs.* Colman, O. G., 193, p. 221, where it was held:

> "The right of an applicant, by substituted application, to relate back to the date of filing the first application for reduction to practice broadly depends upon whether the substituted application is for the same invention as that disclosed in the original application, not that the specific disclosure of the first and second applications may be different or even patentably different if generically they relate to the same invention."

The Office practice in regard to new matter differs according to whether it is sought to be introduced in the description, drawing, or claims. At one time it was common to refuse to admit such changes, or to suspend action on the case until they were cancelled. The present practice is based on decisions of the Commissioner in *Ex parte Soley*, O. G., 91, p. 1616, and in *Ex parte Furness*, O. G., 104, p. 1655. In the *description*, an

amendment presenting new matter is entered, but applicant is required to cancel it. All claims whose interpretation is affected by the changed description should be rejected on this ground. In the drawing, the changes should *not* be made at first. The affected claims should be rejected, as in the previous case, subject to appeal. If applicant prevails upon appeal to any tribunal, then the changes may be made upon the drawing. If the desired change is in the *claims* it should be entered, but the claims rejected. Appeal may be taken as from rejection on other grounds.

It should be noted that new matter may not affect the claims already in the application, and yet may be made the basis of future claims in the application or in a division thereof. This is well brought out in the case of Brill and Brill *vs.* Hunter, O. G., 96, p. 641, decided by the Commissioner. In this case Hunter originally showed a single plate spring for a motor, and stated that a coil or other form of spring could be substituted for it. In a new application filed as a division, Hunter showed a special arrangement of coil springs. This was refused by the Examiner, but admitted by the Examiners-in-Chief on appeal, apparently on the ground that no claims were made to this feature, but that it was introduced only for purposes of illustration. Nevertheless, claims were afterwards made to this feature for interference with Brill and Brill, and Hunter sought the benefit of his original application as fixing the burden of proof of priority. The Commissioner held that the decision of the Examiners-in-Chief no longer applied to the changed conditions, now that the admissibility of the new showing had become of vital importance to the rights of the other party.

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New Matter in Reissue Applications

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New Matter in Reissue Applications

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One of the most important questions to be considered in connection with a reissue application is, What changes may be made in the specification and claims of an original patent and what additions may be made thereto in an application for its reissue? The purpose of this paper is a consideration of the leading decisions upon this subject.

Reissues were granted even before the enactment of any statute specifically authorizing them, and Mr. Lincas D. Underwood in his paper entitled "Certain Phases of Reissues, Particularly Delay in Filing the Application and Inadvertence, Accident, or Mistake," read November 5, 1914, calls attention to the great abuses of the reissue privilege which characterized its early history and gives the history of the enactment of the reissue statutes, so it is deemed unnecessary to repeat such information in this paper. When the reissue practice was in its formative stages, it was natural that, in the absence of statutory restrictions, definite rules, or the precedent of decisions deming the practice, efforts should have been made to include in reissues, anything that had proved to be of value after the grant of the original patent and which was even remotely suggested in the original patent. The early practice was therefore characterized by many attempts to expand original patents by reissue so that they would cover inventions involving great departure from those covered by the original patents on which they were based. It would be impossible, within the permissible length of this paper, to review all such earlier attempts, therefore it will be limited principally to a review of the leading decisions.

The only limitation as the new matter in reissues

contained in the first reissue statute of July 3, 1832, was that the new patent should be "granted to the said inventor for the same invention."

The Act of July 4, 1836, contained no further restriction in this respect.

The Act of July 8, 1870, was the first act to provide any more definite and positive prohibition against new matter, this act specifying that "no new matter shall be introduced into the specification, nor in case of a machine patent shall the model or drawings be amended, except each by the other; but when there is neither model nor drawing, amendments may be made upon proof satisfactory to the Commissioner that such new matter or amendment was a part of the original invention, and was omitted from the specification by inadvertence, accident, or mistake, as aforesaid."

This is the provision in section 4916, Revised Statutes, the present reissue statute upon this subject. Rule 88 of the Rules of Practice provides that

> "New matter shall not be allowed to be introduced into the reissue specification, nor in the case of a machine shall the model or drawings be amended except each by the other."

and is based upon section 4916, Revised Statutes.

A patent is in the nature of a contract between the public and the inventor, and the purpose of a reissue is to correct some error which has been made in such contract. The subject-matter must remain the same if the reissue patent is to be for the same invention as the original, as is required by the statute, for it is not within the province of a reissue to make a contract between the public and the inventor relating to subject-matter regarding which there was no intention between the parties at the time the original contract was executed.

New matter in a reissue case may consist in unwarranted amendments to the specification or to the drawings if drawings be included in the original patent, or it may consist in amendments to the claims of the original patent which cause them to present a different invention from that covered by the original patent, or it may consist in new claims which if allowed in the reissue would cause it to embrace a different invention

from that covered by the original patent and therefore to violate that provision of the reissue statute which requires a reissue to be for the same invention as the original patent. In any reissue application, any and all of these forms of new matter may be present.

It is therefore necessary to consider to what extent amendments to the specification and to the drawings, if any, may be permitted, to what extent the original claims may be changed, and the character of new claims that may properly be allowed.

One of the leading cases is that of Parker & Whipple Co. *vs.* Yale Clock Co., C. D., 1887, 584, which came before the Supreme Court. In this reissue new substantive matter had been introduced into the descriptive portion of the specification and the first eight claims were based upon such added matter. A model had been regularly filed and made a part of the record of the original patent. This model showed the entire clock, but only certain features thereof were described in the original patent or covered by its claims. As to the invention covered by claims 5 to 8 of the reissue, and which involved a specific description of three wheels of the clock train, the court said:

> "Perhaps from the fact that the clock had but three wheels, their position might have been understood by an expert from Drawing No. 6. That drawing was not made for the purpose of showing the wheels and it is manifest from the specification that the patentee did not suppose they had anything to do with his invention which he did suppose lay in entirely other parts of the clock."

The court observed further that the first eight claims "might have been the subject of another application for a patent at the time the original patent was applied for and taken out, leaving that patent valid and operative in respect to the claims it covered."

The facts being as above indicated, the decision of the court was that—

> "There is no evidence of any attempt to secure by the original patent the invention covered by the first eight claims of the reissue, and these

inventions must be regarded as having been abandoned or waived so far as the reissue in question is concerned, subject, however, to the right to have made a new application for a patent to cover them; in other words, these eight claims are not for the same invention as was originally patented."

In order both to form a basis for this conclusion and at the same time repel any inference based upon dicta in prior decisions to the effect that a patent could be properly reissued to cover whatever was disclosed in the original specification, drawing or Patent Office model, the court announced, in substance, the following ruling to determine whether the reissue is for the same invention as the original patent.

It does not follow that what was indicated in the original specification, drawing, or Patent Office model is to be considered as a part of the invention unless the court can see from a comparison of the two patents, (1) that the original patent embodied as the invention intended to be secured by it, what the claims of the reissue are intended to cover, and (2) that the original specification indicated that such invention so claimed in the reissue was embraced in that intended to have been secured by the original.

Walker states that this decision "established the meaning of the phrase 'same invention' to be whatever invention was described in the original letters patent and appears therein to have been intended to be secured thereby"; and he states that:

> "This rule has already been repeatedly reaffirmed and reapplied by the Supreme Court and is now as well established as the companion rule of Miller *vs.* Brass Co."

Therefore he says that "no reissue claim can stand any longer upon a model alone, nor even alone upon a drawing of an original patent." This conclusion, in so far as it relates to disclosure in a model alone would seem to be well founded, but it is no longer of much practical importance since models are so rarely made

parts of patent records. To sustain the statement that a reissue can not stand upon a disclosure in the drawing alone of the original patent, Walker cites the case of Hailes *vs.* The Albany Stove Co., C. D., 1888, 177. In this case the patentee attempted by a disclaimer drawn up by his solicitor, to make "a new patent, or one for a different invention from that which he had described in his specification" and "the claim as modified by this disclaimer has nothing in the specification to stand upon, nothing to explain it, nothing to furnish a reason for it." The court held that a disclaimer could not be employed to amend a patent in this manner, and observed that a drawing annexed to a patent "can not be used, even on an application for reissue, much less on a disclaimer, to change the patent and make it embrace a different invention from that described in the specification. This is fully and clearly shown in the recent case of Parker & Whipple Co. *vs.* Yale Clock Co.," *supra*.

This does not mean, however, that a reissue may not properly be granted to correct an erroneous description of an invention so as to make it harmonize with the correct showing of the drawing, provided the invention remains still the same.

The case of Topliff *vs.* Topliff, C. D., 1892, 402, also came before the Supreme Court. This reissue was granted within four months from the date of the original patent for a means for supporting carriage bodies on side springs. The original patent described the rock rods, to which the ends of the springs were connected as "secured directly to the front and rear axles," instead of "to the hind axle and front bolster," as set forth in the claim of the reissue. The original specification left the matter indefinite since it described the rock shafts as connected to the gearing of the carriage. The court said:

"The original claim was, in the particular above mentioned, a clear mistake, since affixing the connecting rod and springs to the front axle would render it impossible to be turned, and in addition to this the original drawing shows it affixed to the bolster. The correction of a mistake so clear, made within a short time after the issue of the

> original patent, was undoubtedly within the power of the Commissioner, as defined by the Revised Statutes, section 4916."

The case of Powder Co. *vs.* Powder Works, 98 U. S., 126, also came before the Supreme Court, and the court, referring to the inhibition of the statute that "no new matter shall be introduced into the specification," said:

> "This prohibition is general, relating to all patents; and by 'new matter' we suppose to be meant new substantive matter such as would have the effect of changing the invention or of introducing what might be the subject of another application for a patent."

The court went on to say further that:

> "The legislature was willing to concede to the patentee the right to amend his specification so as fully to describe and claim the very invention attempted to be secured by his original patent, and which was not fully secured thereby, in consequence of inadvertence, accident, or mistake, but was not willing to give him the right to patch up his patent by the addition of other inventions which, though they might be his, had not been applied for by him, or, if applied for, had been abandoned, or waived. For such inventions he is required to make a new application subject to such rights as the public and other inventors may have acquired in the meantime. This, we think, is what the present statute means, and what, indeed, was the law before its enactment, under the previous act of 1836. If decisions can be found which present it in any different aspect, we can not admit them to be correct expositions of the law."

New matter may be presented by elimination as well as by addition of description or drawings if by such elimination the invention is changed. For instance, if certain features have been set forth in the original patent

as essential and in the reissue they are omitted or made non-essential and the interpretation of the claims is thereby changed so that they cover a different invention, new matter may be presented.

Gill *vs.* Wells, 22 Wallace, 1.
Russell *vs.* Dodge, 93 U. S., 460.
Atwood *vs.* Portland Co., 10 F. R., 286.
Kirby *vs.* Mfg. Co., 10 Blach, 307.

So, also, elimination of elements in claims may so broaden or change them as to cause them to cover a different invention, *ex parte* Starkey, 105 O. G., 1259.

The Court of Appeals of the District of Columbia in the case of *In re* Hoey, 127 O. G., 2817, held that where a patent describes certain parts of a device as having a specified function, a claim in the reissue application which refers to such parts as "means" in performing a different function requiring a relative location of parts which was not originally disclosed, imports new matter. The court stated that—

> "the reissue must be one in fact and not a new patent on something neither shown nor described in the original patent."

In the case of *In re* Briede, 123 O. G., 322, in the decision of the Court of Appeals of the District of Columbia, Mr. Justice Duell stated:

> "The serious question in the case is whether the claim in controversy is for the same invention as the original patent. If it be, then the fact that it is presented in an application for a reissue and not during the application for the original patent, is of no importance under the facts disclosed by the record, and the law applicable thereto. If the claim would have been sustainable, had it been put into the original patent, there would be no valid reason for holding it not sustainable should it appear in the reissue patent.
>
> "When the objection to a claim based on the ground that it is not allowable because first presented in a reissue, is untenable (unless it be found to be for a different invention than that of

the original patent) it would seem that the same rules apply as would be involved if the claim was presented by an amendment to the specification of the original patent.]

. . . . . .

"If the specification and drawings of an application as originally filed suggest the claims, made by amendment and finally allowed, such claims are valid."

Mr. Justice Duell also stated that the courts "are inclined to resolve all doubts as to whether more than one invention is embraced in a patent in favor of the patentee."

This is a very liberal view of the reissue statute, making the tests as to new matter, first, whether or not it would have been permissible in the original application, and, second, does it cause the reissue to cover a different invention. Matter which will not pass the first of these tests, obviously is not permissible in a reissue. But not all matter which will pass the first test will also pass the second, for the patentee in taking his patent has made a final and irrevocable election as to the invention which he will cover thereby, and whatever rights he may have had during the pendency of his original application to include therein other inventions, have expired with the grant of the patent.

The last clause of section 4916, Revised Statutes, if read alone, might be thought to authorize new matter in reissue applications where there are neither models nor drawings, upon proof satisfactory to the Commissioner that it was a part of the original invention. This clause should be construed, however, not as authorizing the introduction of new substantive matter but merely as extending the privilege of submitting proof to be considered by the Commissioner to aid him in determining whether or not the matter sought to be added was a part of the original invention. Robinson states with regard to this class of cases that:

> "In cases where the invention is incapable of representation by a model or by drawings, necessity requires that this question of identity should

be settled by such methods as are most available. Language even at its best is ambiguous, and to compel the inventor to abide by the construction which might be put by others on his words alone, would often deprive him of the most important fruits of his inventive skill. In determining the nature of the invention indicated in his original specification, and attempted to be covered in his original patent, the disadvantage under which he labors through the impossibility of interpreting his verbal description by pictorial or material representations is overcome, in the hearing on his application in the Patent Office, by permitting him to offer extrinsic evidence as to the true character and attributes of the invention which he has undertaken to describe. The sources and the weight of this extrinsic evidence have not been definitely fixed by law. The statutes merely provide that in this class of cases the proof, upon which any matter omitted from the original specification may be regarded as a part of the original invention, must be satisfactory to the Commissioner, and under this provision papers filed in the Patent Office in connection with the case, and other evidence of official actions, have been received."

And, in *Ex parte* Dieckerhoff, 12 O. G., 429, Commissioner Doolittle in considering this clause stated:

> "It gives to such applicants the privilege of submitting proof as to matter not embodied in the original patent, and permits the exercise of discretion on the part of the Commissioner in the consideration of such proof. Construing the whole of section 4916 together, as it should be, and keeping in mind the only real and lawful purpose of a reissue application, to correct accidental mistakes in the original specification and drawing, there is nothing in the last clause, nor any previous one, to authorize a departure from the original invention, and the setting up in a reissue of a substantially different invention. No amount of proof regarding an entirely different

> invention, however satisfactory it might be in showing that the same was within the knowledge of an applicant at the time of applying for his original patent, could justify the Office in allowing its introduction therein by reissue. To the extent of correcting such errors and omissions as are sometimes supplied by consulting the model and drawing filed with an original application, the clause of the statute under consideration, I think, clearly obtains. It might permit, for instance, of the consideration of all original papers filed in the case, and such other evidence of official action from which the intentions of the parties could be discovered or their rights determined."

It was formerly held that a patent covering only an apparatus could not be reissued to include the process, but it is now the practice to permit such reissue provided the process is clearly disclosed in the original patent but was not claimed by reason of inadvertence, accident, or mistake. *In re* Heroult, 127 O. G., 3217.

It has also been held that a method patent may be reissued to cover a machine. Conroy *vs.* Penn Electrical and Mfg. Co., 173 F. R., 299, 302. In this case the original patent covering the method had been held invalid because broader than the invention. It appeared that the reissue patent claimed a machine by which such method and only that can be practiced, and the court considered that the method and the machine were not distinct and independent inventions but were simultaneously evolved and were correlative units of the single act of invention.

A patent for a process may be reissued to include the product. Asbestos Shingle, Slate & Sheathing Co. *vs.* H. W. Johns-Manville Co., 184 F. R., 620, 631.

A claim which was warranted by the statement of invention in the original patent and which did not exhibit any change in the nature of the invention described but simply gave a more adequate description of the invention without enlarging it, has been held permissible. Crown Cork and Seal Co. of Baltimore City *vs.* Aluminum Stopper Co., of Baltimore City, 108 F. R., 845.

When the original application contained a claim for a stop or guide and such claim was rejected, and canceled, the claims in the patent as issued calling for two guides, a reissue claim for a single guide has been held void. Franklin & Co. *vs.* Ill. Moulding Co., 128 F. R., 48.

A patentee may extend his claims by reissue where the invention remains the same, and there is no material change in the specification or drawings, and he may omit from combination claims one of the distinct elements of such combination, or may include claims for a sub-combination. Universal Caster & Foundry Co. *vs.* M. B. Schenck Co., 165 F. R., 344.

The tests as to new matter in reissue cases may therefore be summarized as follows:

First, does the reissue application contain any matter, either in the specification, drawing, if any be presented, or claims which could not properly have been incorporated in the original application during its pendency. If so, any such matter is new matter in the reissue application, and in determining this question, the tests applied in the case of original applications should be considered.

Having applied these tests and determined what matter, if any, must be excluded in view of them, consideration should be given to the question of identity of invention between the original patent and the reissue application and any matter, whether in the specification, drawing, if any be presented, or claims, which causes the reissue patent to cover a different invention from the original patent must be regarded as new matter and excluded from the reissue application. If it be found that the reissue application contains no matter which could not properly have been presented in the original application during its pendency, it is believed that, upon the question of identity of invention, the Office is justified in following the liberal view which Mr. Justice Duell states in *In re* Briede is followed by the courts by resolving all doubts upon this question in favor of the inventor, bearing in mind the fact that the purpose of the patent law is to give him full protection in consideration of his disclosure, and that the reissue statute, being remedial in character, should be liberally construed.

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A Phase of Double Patenting

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A Phase of Double Patenting

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(The purpose of this paper is the consideration of a single, quite narrow, phase of Double Patenting.)

The term "Double Patenting," like too many terms in patent practice, has an elastic definition. But it is ordinarily used to designate the improper grant, to the same party, of a plurality of patents, usually two, the patents disclosing the same precise matter, or similar matter. One of the patents is invalid in view of the other.

The term is most commonly used when the disclosures in the respective patents are not precisely the same, but are similar, the disclosures being of unpatentably distinct species. A quite recent instance of this condition occurs in Ex parte Isherwood, 231 O. G., 1211.

The phase to be considered in this paper is not that of unpatentably distinct species; but that phase in which the disclosures are precisely the same; the purpose of the paper being to outline what is believed to be the preferable practice when the same person presents to the office a plurality of applications with the same disclosure, but with different claims.

The chief value of Mr. Robinson's work on patents lies, I think, in his emphasis of the fact that the act of invention is not necessarily dependent on the existence of a patent system; in his analysis of the inventive act as such; and in his application of this analysis to the Patent Law of the United States.

As he says so lucidly and beautifully on page 114, of vol. 1:

> The one unchangeable factor in all legal questions relating to inventions is the invention

itself. An invention is either a physical operation or a physical instrument, and as such its essential characteristics are determined by the laws of nature. No human legislation, no judicial interpretation, can increase, modify, or diminish its necessary attributes, and no legal doctrine concerning it can be correct which is based upon a partial or erroneous view of those inherent qualities that differentiate it from all other actual or possible inventions. What is thus true of individual inventions is true of all inventions, considered as a class of agencies employed by man for the production of physical effects. An invention, in that it is an invention, possesses certain attributes without which it could not be an invention, attributes which the law can not alter, and which it can not ignore with any prospect of arriving at reliable conclusions upon any problem that relates to inventions. A clear and accurate apprehension of these necessary attributes is, therefore, the first step in any investigation of the principles and rules of Patent Law, as well as the only guide to the solution of those difficulties which the practical application of that law presents.

And again, on page 136 of vol. 1:

The means by which man satisfies a want arising out of his relations to the external world is, on the contrary, invariably the result of the creative act. The idea which underlies it is necessarily conceived by one before it can be perceived by any. However great the want, however simple the method by which it is supplied, that method can originate only through the exercise of faculties which produce new operations or devices, and not merely discern and imitate the old. When man first came in contact with material nature, he found awaiting him the means of satisfying his most urgent if not all of his essential needs. Fruit offered itself to him for his food, water for drink, the caves and

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; Lamken, 76 O. G., page 785; Jones, 84 O. G., page 12181; Klemm 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

293, 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 appliant 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

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

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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 more 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.)
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> 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.* Bemeth *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. (Scrafford, 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.
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> 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.

February 15, 1917.

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., 589).
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).
Cage *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.* Seamoni (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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1917

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

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.

By

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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 Nikola 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. Langum 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. Langum 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 these objects in view my invention consists in the peculiar and novel construction and combination of parts hereinafter described and pointed out in the claims.

The specification contained a claim and each claim [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 application 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 by the use of grab hooks. I suppose that he would claim and consider 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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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 which 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 combinatien 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, 34 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, 61 O. G., 1781; Cok *vs.* Kutz, 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. (Closson *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.)

Where Both Parties File Applications on the Same Day Without Previous Reduction to Practice the first to conceive is entitled to priority. (McFarland *vs.* Heath, 231 O. G., 1060.)

Conception Shown by an Amendment Followed by Diligence entitles the party to the date of the amendment. (Young *vs.* Stauble, 120 O. G., 1353.)

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.* Meldermott, 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 amended. (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 Overcoming a British Patent is not barred on the ground of *res adjudicata* (Butler *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. (Mathewis *vs.* Gimmell, 212 O. G., 1307.)

Issue Is on Counts Not Patentably Different Awarded to Different Parties

In such a case the Examiner should return a patent to the party to whom the interference counts were awarded. (Dewhurst *vs.* Coes, 226 O. G., 1307.)

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., 1366.)

Inadvertence, Accident or Mistake.

Intentional or Deliberate Omissions in claim matter in the original patent can not be corrected by reissue. (Grand Rapids Show Case Co. *vs.* Baker, 208 O. G., 1366.)

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. (Autopiano Co. *vs.* Am. Piano Action Co., 217 O. G., 1165.)

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* Hiett, 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 Cluster & Foundry Co. *vs.* Schenuit, 116 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 Skinner *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.

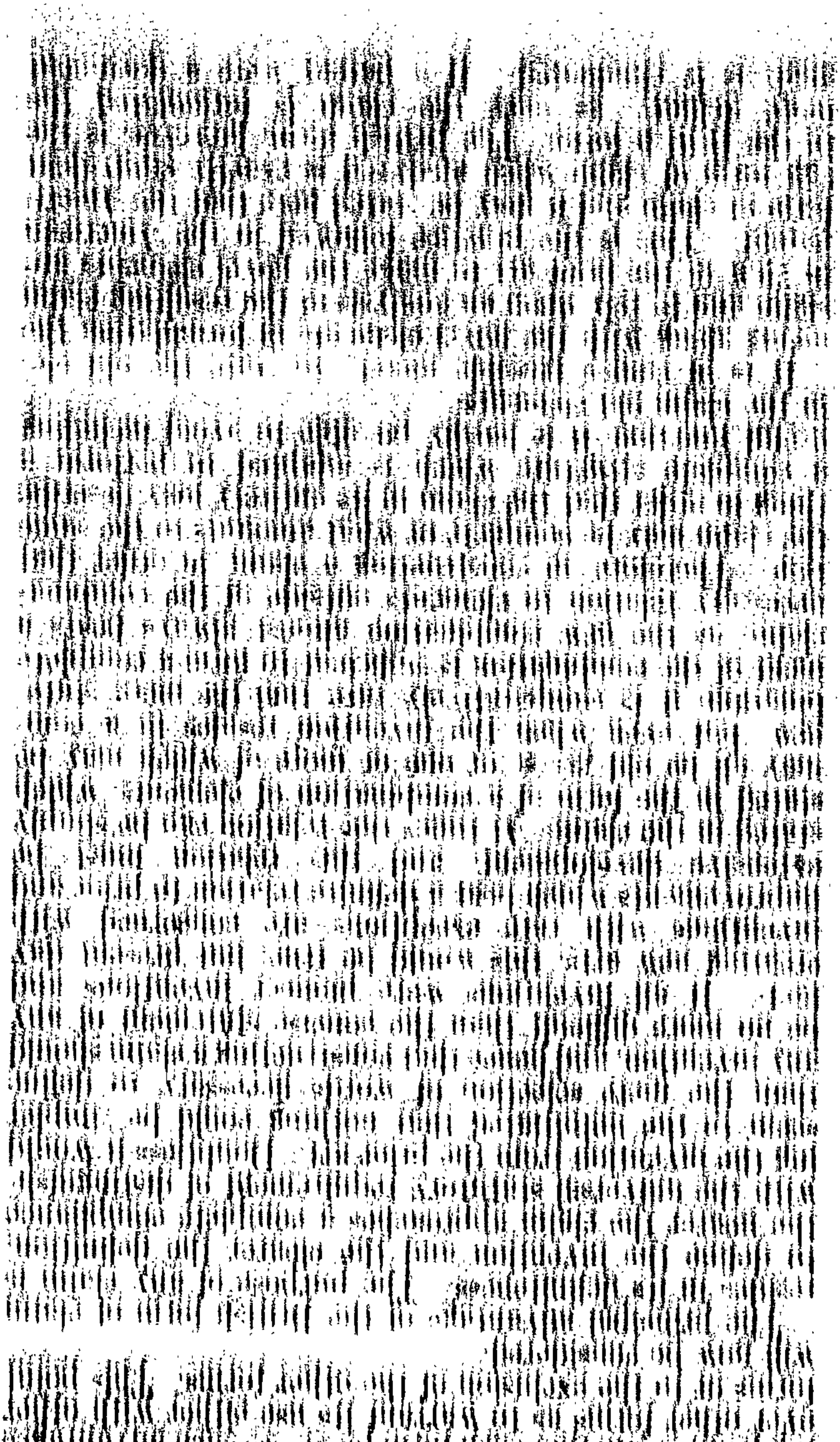
Although the necessity of defining the extent of the monopoly was thus early recognized and required, no particular manner or form was specified or recommended for this purpose. It is interesting to note that the majority of present day patent laws are silent on this point as are also the bulk of court 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



claim just what the inventor intended to claim as his [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 Perely 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:, 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.