

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

distinct and separate action may be maintained.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

COLLATERAL ATTACKS UPON JUDGMENTS.

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

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

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

SUMMARY.

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

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

The operation of this doctrine is to bar further litiga-

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

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

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

April 22, 1915.

TRADE-MARKS

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

BY

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

WASHINGTON, D. C.
1915

Trade Marks

By

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

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

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

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

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

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

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

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

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

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

TRANSFER OF THE TRADE-MARK RIGHT.

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

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

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

REGISTRATION.

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

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

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

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

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

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

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

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

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

Still another perplexing question is that which relates to

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

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

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

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

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

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

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

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

April 29, 1915.

The Registration of Prints and Labels

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

BY

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

WASHINGTON, D. C.
1915

The Registration of Prints and Labels

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

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

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

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

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

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

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

These subjects will be discussed in the order mentioned.

PUBLICATION.

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

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

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

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

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

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

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

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

NOTICE OF COPYRIGHT.

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

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

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

DESCRIPTIVENESS.

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

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

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

ARTISTIC MERIT.

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

LABELS NOT REGISTRABLE.

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

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

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

TITLE.

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

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

April 29, 1915.

WHAT IS PATENTABLE AS A DESIGN?

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

BY

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WASHINGTON, D. C.
1915

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"The material of which the article is made and

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

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

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

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

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

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

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Special Cases Arising in Interference Proceedings

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Special Cases Arising in Interference Proceedings

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

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

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

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

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

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

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

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

This unusual case was once presented. An interference was declared between an application of one party and a patent to another based upon an application filed subsequent to the filing date of the first party.

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

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

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

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

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

After an interference is well advanced, and particularly after proofs have been taken, the same will not ordinarily be terminated without a judgment. But in special cases a dissolution may

Dissolution in Cases Well Advanced.

be ordered without an award of priority, as where it very clearly appears that a statutory bar exists to the grant of a patent to one or more of the contesting parties (*Neill vs. Commissioner of Patents*, 82 O. G., 749; 11 App. D. C., 584; *Oliver vs. Felbel*, 100 O. G., 2384; 20 App. D. C., 255).

The case of *Dwiggins vs. Reid, Reid and Kelly*, recently before the Office, developed an un-

Dwiggins vs. Reid, Reid and Kelly.

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

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

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

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

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

A second interference will not usually be declared between the same applications, or between new applications by the same parties relating to the same general invention. But a second interference

Successive Interferences.

is sometimes rendered necessary in order that the successful party in the first proceeding may secure the full benefit of the judgment in his favor, as where the losing party in the first case is permitted to go to patent with claims which should have been rejected upon the issue.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Evidence in Foreign Countries.

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

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

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

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

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

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

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

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

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

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

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

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

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

May 6, 1915.

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

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

BY

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U. S. Patent Office

WASHINGTON, D. C.

1916

Combination Claims Employing Terms “Means,” “Mechanism,” etc., Fol- lowed by a Statement of Function with Relation to the Statute.

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

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

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

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

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

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

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

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

“(1) The combination in a machine for sewing shank buttons to fabrics, of button-feeding mechanism, appliances for passing a thread through the eye of the buttons and locking the loop to the fabric, and feeding mechanism substantially as set forth.

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

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

The court, in discussing this case, stated that:-

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

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

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

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

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

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

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

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

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

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

While this decision was intended to make the practice

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

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

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

"If the abundant use of the words 'means, mechanism, and appliances' (in *Morley's* claims) can invalidate them, in view of the statute which requires the applicant to particularly point out and distinctly claim the part, improvement or combination which he claims as his 'invention or discovery' it will be conceded that the claims of *Morley* were void for indefiniteness. But the court nowhere intimates that such is the case, and proceeds in a learned opinion to show that the *Lancaster* machine although differing essentially in matters of construction from the *Morley* machine, nevertheless employed equivalent mechanisms and appliances for accomplishing the same results, and therefore was an infringement. It is impossible to avoid the conclusion that if *Morley*

had been held to the doctrine that the words 'means, mechanism, and appliances' may not be used in claims, when suitably qualified, he would have been unable to hold as an infringer one who appropriated the principle of his invention disguised in an organization different from that which he showed in his patent in every other respect.

"No general rule can be laid down for governing the employment in the claims of patents of such words as those under consideration. It is the object of the law, as it is the solicitude of this Office, to protect inventors and guard their inventions. . . . In the case, however, of patents which represent the infancy of an art or the stage of its earliest practical development, this Office is equally solicitous that the inventor should be accorded a breadth of claim which is commensurate with the extent and importance of the invention which he desires and is entitled to protect. . . . Of course, in all such cases while the Office will insist upon as much definiteness in the language of the claim as the statute calls for, it will also, if it properly discharge its function as the protector of the inventor leave something to the salutary and benignant agency of construction in the courts.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"This word, although used somewhat loosely, is commonly understood to denote a patent

covering a function never before performed, a wholly novel device, or one of such novelty and importance as to mark a distinct step in the progress of the art, as distinguished from a mere improvement or perfection of what had gone before."

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

September 21, 1916.

ESTABLISHING NOVELTY BY AFFIDAVITS

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

BY

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WASHINGTON, D. C.
1916

Establishing Novelty by Affidavits.

By

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

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

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

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

Rule 75 provides that—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section 4886 of the Revised Statutes provides as follows:

“Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceedings had, obtain a patent therefor.”

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

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

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

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

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

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

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

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

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

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

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

BY

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INTRODUCTION.

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

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

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

decisions that accord with fundamental truth and simple justice.

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

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

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

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

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

NON-MONOPOLISTIC FUNDAMENTAL PRINCIPLE.

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

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

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

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

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

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

However, in this same decision it was stated:

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

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

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

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

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

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

FUNDAMENTAL EDUCATIONAL PRINCIPLE.

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

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

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

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

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

FUNDAMENTAL PRINCIPLE INVOLVING ANTICIPATION.

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

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

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

FUNDAMENTAL CONTRACTUAL PRINCIPLE.

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

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

SOME OTHER FUNDAMENTAL DECISIONS.

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

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

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

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

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

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

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

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

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

FUNDAMENTAL CONSTITUTIONAL PRINCIPLE.

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

This memorandum contained the following two separate paragraphs:

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

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

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

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

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

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

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

GENERAL OBSERVATIONS AS TO FUNDAMENTALS CONSIDERED.

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

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

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

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

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

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

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

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

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

ESSENTIALS IN THE APPLICATION OF FUNDAMENTAL PRINCIPLES.

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

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

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

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

Secondly, Matters of Substance and Matters of Form.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

“On filing of any such application and the payment of the fees required by law, the Commissioner of Patents shall cause an examination to be made of *the alleged new invention or discovery*; and if on such examination it shall appear that the claimant is justly entitled to a patent under the law, and that the same is *sufficiently useful and important*, the Commissioner shall issue a patent therefor.”

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

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

In every other line of work wherein analysis, diagnosis,

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

In further support of the view that, under Revised Statutes 4893, a proper examination of an application should be directed to finding out what is the real invention disclosed therein in view of the prior art, your attention is invited to Vol. 1, page 155, Robinson on Patents, in which it is stated that:

"The claim is to define what the Patent Office, after due examination, has ascertained to be the real discovery of the inventor, and it must be amended or withdrawn according to the judgment of the officers to whom this duty is committed."

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

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

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

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

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

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

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

Revised Statutes 4903 provides:

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

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

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

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

SOME APPLICATIONS OF ELEMENTARY PRINCIPLES.

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

cases that frequently come before the examiner for consideration.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"The very terms of the patent, as they have been already considered, and as they have been construed at the bar by the plaintiff's counsel, at the present argument, seem almost conclusively to establish that the patent is for the whole machine, that is, for the whole of the improved hopper-boy, and not for a mere improvement upon the old hopper-boy.

"It is clear that the party can not entitle himself to a patent for more than his own invention; and if his patent includes things before known, or before in use, as his invention, he is not entitled to recover, for his patent is broader than his invention. If, therefore, the patent be for the whole of a machine, the party can maintain a title to it only by establishing that it is substantially new in its structure and mode of operation. If the same combinations existed before in machines of the same nature, up to a certain point, and the party's invention consists in adding some new machinery, or some improved mode of operation, to the old, the patent should be limited to such improvement, for if it includes the whole machinery, it includes more than his invention, and therefore can not be supported.

"The specification has two objects: one is to make known the manner of constructing the machine (if the invention is of a machine), so as to enable artisans to make and use it, and thus to give the public the benefit of the discovery after the expiration of the patent. It is not pretended that the plaintiff's patent is not in this respect sufficiently exact and minute in the description. But whether it be so or not, is not material to the present inquiry. The other object of the specification is, to put the public in possession of what the party claims as his own invention, so as to ascertain if he claims anything that is in common use, or is already known, and to guard against prejudice or injury from the use of an invention which the party may otherwise

innocently suppose not to be patented. It is, therefore, for the purpose of warning an innocent purchaser, or other person using a machine, of his infringement of the patent, and at the same time of taking from the inventor the means of practicing upon the credulity or the fears of other persons, by pretending that his invention is more than what it really is, or different from its ostensible objects, that the patentee is required to distinguish his invention in his specification. How can that be a sufficient specification of an improvement in a machine which does not distinguish what the improvement is, nor state in what it consists, nor how far the invention extends—which describes the machine fully and accurately as a whole, mixing up the new and old, but does not in the slightest degree explain what is the nature or limit of the improvement which the party claims as his own? It seems to us perfectly clear that such a specification is indispensable, and we are of opinion that the inventor ought to describe what his own improvement is, and to limit his patent to such improvement.”

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

September 28, 1916.

PROTECTION OF INVENTION

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

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

BY

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

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

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

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

“Fundamentally, knowledge of the invention is more important than knowledge of the rules.”

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

The requisites of valid patent protection are:

- (1) An adequate original disclosure,
- (2) A correct determination of the statutory class to which the invention belongs, and
- (3) The drafting of the claims in such form as to cover the entire unexpected advance made by the invention over the prior art and nothing more, nothing less.

DISCLOSURE.

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

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

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

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

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

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

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

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

STATUTORY CLASSES OF INVENTION.

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

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

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

Article

Defined By

Process.

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

A most perplexing question, and one open to great difference of opinion, as regards the class to which an invention should be assigned, arises in connection with the first two statutory classes—method and apparatus. This is particularly true of electrical cases.

A most helpful discussion of the more general subject will be found in a very excellent paper by Mr. E. D. Sewall (*Sci. Amer. Sup.*, Oct. 1 & 8, 1910), quoted at length by the Commissioner in his Georgetown lectures.

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

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

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

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

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

Electrical Methods.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Illustrative Decisions.

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

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

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

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

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

We pass now to a closer consideration of the relationship that may exist between method and apparatus and in this connection the decision of the Supreme Court in *U. S. ex rel. Steinmetz vs. Allen, Commissioner of Patents*, 1904 C. D., 703, is of special interest. The question there involved was the propriety of the requirement of division between claims to a method and other claims to the apparatus for performing it, certain of the claims of the respective groups (see particularly claims 6 and 10) being substantially the same in scope though drawn to different statutory classes of invention. The court said:

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

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

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

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

12. In a system of distribution, means regulating a generator, comprehending means creating an independently determined magnetomotive force, means creating an opposing magnetomotive force which is a function of the current generated and thus producing a resultant magnetic field whose polarity is dependent upon the current generated, means exposed to the influence of the above-named resultant magnetic field tending to set up an independent magnetic field, producing motion in a positive or negative direction dependent upon the polarity of the resultant magnetic

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

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

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

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

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

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

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

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

Reissue to Avoid Double Patenting.

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

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

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

To summarize, it would appear:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Unpatentable Combinations, Doctrine of Equivalents a Test of.

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

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

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

The foregoing homely illustrations demonstrate the

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

It is generally true that it involves no invention to adapt direct current apparatus for use

D. C. Apparatus Used on A. C. on alternating current, since such adaptation involves only well-known matters of design and engineering knowl-

edge. But in the case of *Pieper vs. S. S. White Dental Mfg. Co., supra*, it was held that where a system of motor control was old in the d. c. art but the teaching of the prior art pointed away from the use of motors having the particular characteristics of construction involved therein, because of inefficiency, there was invention in adapting such system for operation on alternating current in which use it supplied a long-felt want in a manner which before had not been obvious.

In the *Safety Car Heating & Lighting Co. vs. U. S. Light & Heating Co.*, 222 F. R., 320,

Wire and Carbon Pile Rheostats Equivalents. the equivalence of wire rheostats and carbon pile rheostats in car lighting systems is recognized in view of their established equivalency in

other relations, notwithstanding advantages possessed by the carbon pile in car lighting systems.

The importance of the subcombination claim as a means of obtaining maximum protection com-

Subcombination Not Protected by Combination Claims. mensurate with the scope of the invention and the fact that such protection may be lost by asserting only combination claims or by including non-essential elements is well illustrated in the case

of *Bullock Electric & Mfg. Co. vs. Westinghouse*, 129 F. R., 105, involving the Tesla patents Nos. 381,968, 382,279, and 382,280. The first two patents claimed an induction motor of novel construction in combination with an appropriate source of supply, while the last patent covered the method of transmitting power, performed by the motor. Notwithstanding that it held three

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

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

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

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

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

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NEW USES OF OLD INVENTIONS

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1916

New Uses of Old Inventions

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

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

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

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

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

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

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

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

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

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

NEW USE OF OLD ART OR PROCESS.

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

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

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

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

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

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

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

NEW USE OF OLD MACHINE.

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

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

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

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

“But where the alleged novelty consists in transferring a device from one branch of industry to another, the answer depends upon a variety of considerations. In such cases we are bound to inquire into the remoteness of the relationship of the two industries; what alterations were necessary to adapt the device to its new use, and what the value of such adaptation has been to the new industry. If the new use be analogous to the former one the court will undoubtedly be disposed to construe the patent more strictly, and to require clearer proof of the exercise of the inventive faculty in adapting it to the new use—particularly if the device be one of minor importance in its new field of usefulness. On the other hand, if the transfer be to a branch of industry but remotely allied to the other, and the effect of such transfer has been to supercede other methods of doing the same work, the court will look with a less critical eye upon the means employed in making the transfer.

“It often requires as acute a perception of the relations between cause and effect, and as much of the peculiar intuitive genius which is a characteristic of great inventors, to grasp the idea that a device used in one art may be made available in another, as would be necessary to create the device *de novo*.

“As a result of the authorities upon this subject, it may be said that, if the new use be so nearly analogous to the former one, that the applicability of the device to its new use would occur to a person of ordinary mechanical skill, it is only a case of double use, but if the relations between them be remote, and especially if the use of the old device produce a new result, it

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

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

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

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

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

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

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

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

NEW USE OF OLD MANUFACTURE.

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

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

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

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

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

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

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

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

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

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

In *Browning vs. Colorado Telephone Co.*, 68 O. C., 11-15, a Circuit Court of Appeals case, a terra cotta conduit for electric wires, divided into two sections by a longitudinal partition, was considered to be a double use merely of terra cotta building blocks so divided by one or more partitions.

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

NEW USE OF OLD COMPOSITION OF MATTER.

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

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

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

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A Test of the Legitimacy of Claims to Methods

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Corps of the United States Patent Office

BY

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WASHINGTON, D. C.

1916

A Test of the Legitimacy of Claims to Methods

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Scope of the Phrase "Described in a Printed Publication"

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Corps of the United States Patent Office

BY

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U. S. Patent Office

WASHINGTON, D. C.

1916

Scope of the Phrase "Described in a Printed Publication"

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

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

DESCRIBED.

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

Since words, signs and symbols are merely the vehicles by which thought is transmitted from one individual to another, the first controversy that may arise in considering an alleged description of an invention is whether or not the inventive thought in question is actually transmitted by the said description.

A certain description of an object may be entirely incomprehensible to one person, partially understood by another, and perfectly comprehended by a third. The question, therefore, arises to what class of persons

must the alleged description convey the inventive thought; and to what extent must it be conveyed.

In the case of *Plimpton vs. Maleomson* (decided before a British tribunal, but quoted with approval by various United States courts), it is stated:

“But there are various kinds of people who know something about it. If it is a mechanical invention, as this is, you have, first of all, scientific mechanics of the first class - eminent engineers; then you have scientific mechanics of the second class - managers of great manufactories, great employers of labor, persons who have studied mechanics not to the same extent as the first class, the scientific engineers, but still to a great extent - for the purpose of conducting manufactories of complicated and unusual machines, and who therefore must have made the subject a matter of very considerable study; and in this class I should include foremen, being men of superior intelligence, who like their masters would be capable of invention, and like the scientific engineers would be able to find out what was meant even from slight hints, and still more from imperfect descriptions, and would be able to supplement, so as to succeed even from a defective description, and even more than that, would be able to correct an erroneous description. That is what I should say of the first two classes which I will call the scientific classes. The other class consists of the ordinary workman, using that amount of skill and intelligence which is fairly to be expected from him--not a careless man, but a careful man, though not possessing that great scientific knowledge or power of invention which would enable him by himself, unaided, to supplement a defective description, or correct an erroneous description.”

The alleged anticipating description must be such as will convey the inventive thought completely to the ordinary workman employed in the art to which the invention relates; but need not be such as will convey the

invention to one unacquainted with the art in question.

Each art or industry employs ordinary workmen to perform various specific tasks; and each workman is usually confined to his own particular duty, and gains no knowledge of the industry as a whole by reason of his employment therein. It is necessary, therefore, in selecting the workman whose intelligence is to be the criterion, to choose him from the ranks of those employed in the particular duty to which the description relates.

For example, if the description related to a plan or design for a machine or engine, the workman whose intelligence and knowledge is to be the criterion should not be selected from those engaged in manipulating the various members of which the machine is composed, but from those whose duties involve the contemplation of the machine as a whole; such as a draftsman or designer.

Where the alleged description is verbal, either with or without the assistance of a drawing, the only controversy that can arise is as to the sufficiency of the description to convey the inventive thought to the ordinary workman engaged in the art to which the invention relates. This is a question of fact, to be decided in each individual case by the circumstances peculiar thereto; and as to which no legal principle of general application can be enunciated. In each individual case one's decision as to the sufficiency of a description is controlled by his conception of the intelligence possessed by an ordinary workman.

Such conception is influenced to some extent by interest in the result following a decision. Doubtless an examiner sometimes attributes to the workman a degree of intelligence beyond that usually possessed by one of that class. On the other hand, if the typical workman possessed only the intelligence frequently attributed to him by applicants, he would soon become a charge upon the public.

Controversy has arisen as to whether or not a disclosure made by a drawing alone can be regarded as a legal description.

It seems evident that Section 4886 of the Revised Statutes does not sanction the grant of a patent covering

an alleged invention, knowledge of which was accessible to the public prior to the conception thereof by the alleged inventor. Therefore, if the spirit of the law be followed, the term "described" as used in the statutes should be interpreted to include all printed or published means whereby knowledge of an alleged invention can be communicated.

However, in several cases pending in Division 28, in which were cited references consisting of a drawing alone, the invalidity of such references was strongly urged on the authority of several judicial decisions and on the contention that the word "described," as used in the patent statutes, necessarily implied the presence of verbal disclosure.

The word "described," as defined by standard authorities, means:

(1) To represent by drawing; to draw a plan of; to delineate; to trace or mark out.

(2) To represent by words written or spoken; to give an account of; to make known to others by words or signs.

The first group of definitions, it was argued, referred to the physical act of making a drawing. For example, to describe a circle.

The error in this reasoning, however, lies in the fact that "represent" means "to show," "to set forth." Therefore "to represent by drawing" means to show or set forth by drawing.

The second group of definitions, of course, does not cover a disclosure made by drawing alone, unless the term "sign" can be interpreted to cover a drawing.

The judicial decisions alleged to indicate that a drawing alone is not a valid disclosure will be discussed in their chronological order. They are the following:

Judson vs. Cope, 1 Fisher, 615 (S. Dist. Ohio, May, 1860):

This was a suit for infringement of a patent. The defense offered was lack of novelty in view of certain printed publications, among which was a German work consisting only of plates or drawings without verbal description.

Objection was made against the validity of this publication; and the court said:

"I suppose it is not a matter of much importance in this case, but I should hesitate very much to accept a mere drawing, unaccompanied by any description whatever. I think it not admissible under the present notice."

The court did not state why it hesitated to accept the drawing alone, nor why it was a matter of no importance. It is reasonable to suppose that the court thought that the drawing was too obscure to disclose the invention. Certainly if the court had intended to enunciate the broad principle that a drawing alone was insufficient to disclose an invention, it would not have stated that it was a matter of no importance. This decision, therefore, can not be taken to establish the doctrine that a published drawing alone can never constitute an anticipation.

Reeves vs. Keystone Bridge Co. (U. S. Cir. Ct., E. Dist. of Pa., 1 C. C., 466--1872):

This was a suit for the infringement of a patent. Among other defences offered, it was alleged that the invention covered by the patent was anticipated by a certain publication known as the "Dreyfus Album," which album consisted of drawings alone.

Referring to this album, the court said:

"It contains an illustration, by a drawing, of the thing intended to be represented, without verbal description; and whether this is a description at all or such a one as the act contemplates may well be denied on the authority of *Seymour vs. Osborn* (11 Wallace, p. 516) and the cases referred to therein with approval. But it is unnecessary to decide this question as the proof is deficient in another essential particular—it is not shown that the work was published before the date of the complainant's patent."

This decision expressly avoids a decision on the question here at issue. Furthermore, an examination of the

record in the case of *Seymour vs. Osborn* discloses no foundation for the dictum of the court relating to the validity of disclosure by drawings alone. The case of *Seymour vs. Osborn* in no way referred to this question. Consequently the case of *Reeves vs. Keystone Bridge Co.* can not be regarded as bearing on this subject.

In re *Atterbury* (C. D., 1876, page 79):

This case presented facts almost identical with those in the case of *Reeves vs. Keystone Bridge Co.*; and Commissioner Spear quotes with approval the opinion of the court in that case. However, a direct decision on the question at issue is again avoided, since the alleged anticipating drawing had no date of publication.

New Process Co. vs. Koch (C. D., 1884, page 421):

This was a suit for the infringement of patent 215,679, May 20, 1879, to Meller & Hoffman.

One of the defences was that the patent was anticipated by a certain patent to Pfaudler, issued July 2, 1878.

The assignees of the Pfaudler patent conducted the defense; and the court treated the case as a contest for priority of invention between the two patentees, rather than as a suit for infringement.

Meller & Hoffman, who were foreigners, endeavored to establish the date of introduction of their invention into the United States by certain circulars sent to persons engaged in the brewing trade, and with the view of introducing the Meller & Hoffman process into use here.

As to these circulars, the court said:

“It is attempted to carry the date of plaintiff’s invention back to the time when the circulars were received, which was undoubtedly anterior to the time when Pfaudler had perfected his mechanism. But it seems to me there are two objections to these circulars. First, they do not describe the Meller & Hoffman device with that clearness and certainty which the law requires for an anticipation. . . . Now, referring to the second circular which is much the fuller of

the two, Meller says that (here follows the contents of the circular; which need not be quoted). This is all there is in the circular by way of specification. It is true that annexed thereto is an incomplete drawing which might possibly, to a skilled workman, give an idea as to the real construction of the device, but tested by the definition found in the two cases above cited, it seems to me to fall considerably short of the particularity required in a patent or in a publication claimed to anticipate a patent. . . . It has been frequently held that drawings alone, unaccompanied by letter-press description, will never invalidate a patent. In *re Atterbury, Judson vs. Cope, Reeves vs. Keystone Bridge Co.*"

It appears from the above that the question under consideration was not involved. No reference consisting of a drawing alone was present in its record. Furthermore, even though such a drawing had been offered, the question to be decided by the court was whether or not it introduced knowledge of the invention into this country. The question as to whether or not the evidence offered was a publication was not involved, since it might have been sufficient to introduce knowledge without being a publication.

The court, therefore, in this decision, had no occasion to pass on this question; and its observation relative thereto was in reality an uncalled for dictum. It is to be observed also that this dictum was based on supposed precedents which, as above shown, fail to support it.

Decisions upholding, or tending to uphold, the validity of disclosures by a drawing alone are found in

Ex parte Borden, C. D., 1884, p. 9.

Wright vs. Yuengling, C. D., 1894, p. 560.

American Writing Mach. Co. vs. Wagner Typewriting Mach. Co., 151 F. R., 576.

Millet & Reed vs. Dyell, C. D., 1901, 410.

Ex parte Borden:

In the case of *ex parte Borden*, the examiner had cited as a reference a patent, the drawing of which

showed the alleged anticipating matter. It was not described in the patent.

Applicant petitioned the Commissioner to hold that a drawing alone without verbal description was not a valid description.

In his decision, Commissioner Butterworth said:

“But even without any description, if a published drawing fully and clearly exhibits and discloses an invention sought to be patented, it is an adequate and complete reference of itself alone. A good, clear, and distinct drawing of an invention is a higher order of evidence of the existence of the invention than any mere description thereof in words.”

Wright *vs.* Yuengling:

This was a suit for the infringement of patent No. 144,818, to the plaintiff Wright. The structure covered by the patent was a frame for stationary engines in which the cross-head guide was made in the form of a cylinder. The front end of this cylinder was connected with the engine base by a semi-circular trough-like connection in which the connecting rod reciprocated; and this trough-like body formed an element in the combination covered by claim 2 of the patent.

The defense set up against infringement of claim 2 was lack of novelty in view of the prior art.

As to this prior art, the court said:

“The guiding cylinder, which is used in lieu of the ordinary parallel slides, was, however, by no means a novelty in the construction of engine frames. It is found in different stages of perfection in several patents. It is true that none of these patents exhibit distinctly the trough-like connection of the Wright patent, but that also is found in the patent to Chilion M. Farrar, in which it is fully shown in the drawing, *though not described in the specification*, and is used in connection with flat parallel slides. Wright's only invention, then, was in the combination of the cylindrical guide with the trough shown in

the Farrar patent. Did this accomplish a new and valuable result, it is quite possible that a patent therefor might have been sustained; but we do not find this to be the case. The cylindrical guide performs the same function as in the prior patents; and the trough, in which the connecting rod works in the Farrar patent, is practically the same as in the Wright patent, and the combination is a mere aggregation of their respective functions."

In this case, therefore, the court found that there was no invention in combining old elements; and the only evidence that one of these elements was old was a drawing without description. This is a Supreme Court decision; and was delivered by Justice Brown, who delivered the opinion, as a Circuit Judge, in the case of *New Process Co. vs. Koch*, above discussed.

American Writing Machine Co. vs. Wagner Typewriting Mach. Co.:

The subject-matter involved was a typewriter provided with an adjustable stop.

Defendant held that the patent was anticipated by a patent to Yost, granted April 23, 1889. The drawing of the Yost patent, and the model each showed the combination claimed; but the specification did not describe the adjustable stop. Oral testimony was offered as to the function of the stop shown by the drawing and model. The patent was held anticipated, but the court said:

"if the proof of prior invention was confined to the Yost patent or to the oral testimony alone, or to the model alone it would probably be rejected as insufficient; but the three united present one of the strongest cases of anticipation with which we are acquainted."

In this case, therefore, a patent was held invalid on an anticipating disclosure of which a written description formed no portion, and of which disclosure the only portion that was published was a drawing.

Millett & Reed vs. Duell:

In this case, an appeal had been taken to the Court of Appeals of the District of Columbia from a decision of the Commissioner of Patents refusing letters patent to the appellants. The ground upon which such refusal was based was that the invention sought to be covered was disclosed in a certain patent which was issued three days after the filing of appellant's application, but which patent was granted on an application filed before the filing of appellant's application. Furthermore, the disclosure was made in the drawing alone, and not described in the specification.

The court sustained the Commissioner; but since the patent was not cited as an anticipating publication, but as an evidence of prior knowledge, the court's decision is not pertinent to the question under discussion.

PRINTED.

So far as I have been able to ascertain, the meaning of "printed" has never been the subject of judicial consideration. This, doubtless, is due to the fact that at present the universal method of producing a publication is by imprints from type; and therefore such publications do not offer grounds for controversy. Discussion of this subject is somewhat academic; but since publications can be made by other processes than by imprints from type, it may be interesting to consider what forms of publication may be covered by the term "printed."

Standard authorities define "printed" as—

- (1) To fix or impress.
- (2) To stamp something in or upon; to make an impression or mark by pressure.
- (3) To strike off an impression from a set of type or the like.
- (4) To take a copy from a negative by the action of light upon a sensitized surface.

The popular conception of the term "printed" implies a copy of something produced by pressure, or by the action of light upon a sensitized surface.

Such a conception is, however, too narrow. It is obvious that the information conveyed by a publication

made by characters upon a surface is independent of the means by which such characters are placed upon the surface. Therefore to limit the term "printed" to the method by which characters are formed would be contrary to the spirit of the law.

Since a publication is any means by which information is given to the public, and may be made by words written or spoken or by signs, it would seem reasonable to infer that the framers of the statute intended "printed" to be interpreted as meaning "fixed" in contradistinction to such fugitive means as oral words and signs.

This interpretation of "printed" is warranted by the first definition above given—to fix.

It is also a popular conception that a printed publication appeals to the eye; but with the above indicated interpretation of the term, it could cover fixed means of communication appealing to other than the visual sense; such as publications for the blind and even phonographic records.

PUBLICATION.

A disclosure, although printed, is not a publication until measures are taken to place the description within reach of the public.

As stated in *Collier vs. Stimpson* (20 F. R., 906):

"Something more than printing is required. The statute goes upon the theory that the work has been made accessible to the public, and that the invention has been thereby given to the public, and is no longer patentable to any one. Publication means put into general circulation or on sale where the work is accessible to the public."

This same decision enunciates the principle that the date placed by the publisher on an alleged publication is not evidence that it was actually published on that date or in fact that it was published at all; but, to be regarded as a publication, it must be shown to have been made accessible to the public.

The extent, however, to which the public avail themselves of this accessibility is immaterial.

In order to be a valid publication, it must be made accessible to the whole body of the public; and not confined to any particular class. Thus, trade circulars issued only to those interested or supposed to be interested in a certain art are not publications (*Parsons vs. Colgate*, C. D., 1883-319). This decision and one or two others following it as a precedent, have, I believe, been misinterpreted to hold that such circulars can not become publications. In my opinion, if such a circular were made accessible to the public, it would then become a publication; and the fact that it had originally been addressed to a portion only of the public would not prevent its use from being so expanded as to embrace the entire public.

November 2, 1916.

Endorsements and Cross-References

A Paper read November 2, 1916, before the Examining
Corps of the United States Patent Office

BY

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1916

Endorsements and Cross-References

By

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Rule 43 of the Rules of Practice and Commissioner's Orders Nos. 1832, 2010 and 2071 direct that certain classes of applications shall contain cross-references to each other; and that divisions, continuations and substitutes for previously filed applications shall have endorsements upon their file wrappers referring them to their parent cases.

There exists no definite statement as to exactly what is covered by the terms division, continuation, and substitute; and there are several classes of application which should logically bear endorsements on their file wrappers to show their connection with other applications, but which are not covered by the terms just quoted.

Therefore it is the purpose of this paper to discuss the object of such endorsements and cross-references with the view to more exactly define the significance of the terms in question, and to suggest forms of endorsement to be placed on the file wrappers of those applications which are not covered by the said terms but which nevertheless should bear some indication of their relationship to certain other cases.

Such endorsements and cross-references have several important functions.

First. They indicate the ownership of the applications. This information is necessary that the patents may issue to the proper parties. The assignment of an application affects the title, not only of that application, but of all divisions, continuations and substitutes thereof which may be filed. Such divisions, continuations and substitutes should issue to the assignee of the parent

case; and should therefore contain an indication of such relationship. As the relation of the applications can be determined only by a comparison of the applications, the assignment division, in dealing with the cases, is almost necessarily compelled to rely upon the notices appearing on the file wrappers and in the specifications.

Second. Where the original and subsequent applications are co-pending, the notices indicate the date to which applicant is entitled when, in the prosecution of the later application, its date of filing is considered.

Third. In the case of a patent, such a notice apprises any one examining the record of the patent that another application or patent exists which may contain claims covering the subject-matter disclosed in the patent containing the notice.

Fourth. The notices inform the public of other applications in which the prosecution of the claims might have been carried on; and prevent the practice, more or less common at one time, of prosecuting claims to allowance and then filing a new application containing only the allowed claims and giving no hint to the public of the steps leading up to allowance.

The relationship of the subsequent application to the parent case can be most easily and accurately determined by the examiner during the prosecution of the applications before him; and on him logically falls the duty of making the proper endorsement on the file wrapper and requiring proper references in the specifications.

The instructions placing this duty upon the examiner are found in Commissioner's Orders Nos. 1832, 2010, 2071 and Rule 43 of the Rules of Practice. These orders, when read together, direct as follows:

When an application is filed which, in the opinion of the examiner, is a division of, a continuation of, or a substitute for, a previously filed application, the examiner will not require applicant to insert a reference to the prior application in the specification; it being regarded as sufficient if this reference appears somewhere in the record of the application. The examiner will make the appropriate entry upon the face of the file wrapper. The heading of the printed patent will then conform to this entry.

Rule 43, relating to cross-references, reads as follows:

“When an applicant files two or more applications relating to the same subject-matter of invention, all showing but only one claiming the same thing, the applications not claiming it must contain references to the application claiming it.”

In the previously mentioned orders, only the three terms, division, continuation and substitute are used, and it is impossible to group under these three terms all the various applications requiring endorsements on the file wrappers, without extending the meaning of these terms beyond their commonly accepted significance. Since certain decisions have rather clearly defined the meaning of the terms division and continuation, it has been suggested that the term substitute should be applied to all cases which require endorsements and which are not covered by the terms division and continuation; but to me the broadening of these terms to cover a variety of applications having diversified characteristics appears improper.

The term *Division* has a well-defined meaning and is generally accepted as designating an application which contains only matter carved out of a previously filed application or which contains only such matter modified by immaterial additions or changes. A division must be filed during the pendency of the original application. To such applications and such only should the term division be applied.

It sometimes occurs, however, that an application is filed which, so far as the subject-matter is concerned, would be a true division of a previously filed case, but the filing of which was delayed until after the grant of a patent upon the original application. By reason of this lack of continuity in prosecution, this application can not properly be designated as a division. Such a later filed application, although, through lack of continuity in prosecution, not entitled to the date of filing of the first-filed application, would yet be covered by an assignment of the latter. Therefore, in order to insure the issuance of the patent to the proper party, the later filed application should contain some reference to the

earlier. Therefore since in practice the form of endorsement to be placed on the file wrapper of said case is not yet definitely decided and the latter case in every respect except that of filing is a division of the earlier, it is suggested that the term *Division Filed After Grant* be endorsed on the file wrapper. While, of course, such a case is not a division in the generally accepted meaning of the term, yet it is a division of the subject-matter of the earlier case. The proposed form of endorsement would indicate this fact, as well as disclose the break in continuity of prosecution.

The term *Continuation* does not have so generally accepted a meaning as the term division. It appears to be used in some decisions in a sense broad enough to cover any application which is entitled to the date of a previously filed application and where so used, would include divisions and substitutes. As all three terms are used in the orders, it is apparent that they are intended to have distinct meanings. Therefore, in the absence of definite instructions as to the meaning of this term, it is suggested that it be applied exclusively to those applications which contain only claims that could have been made in an earlier copending application, but the subject-matter of which involves a material departure from the earlier application. Such applications, like divisional applications are entitled to the date of the earlier applications, but, on account of the departure from the earlier applications, can not be termed divisions.

Similar to the cases above termed divisions, there are applications which, as far as the subject-matter is concerned, might be termed continuations, but the filing of which is delayed until after the issue of the original application. While such cases have no continuity of prosecution, there is, nevertheless, continuity of subject-matter and an assignment of the prior application would carry title to the subsequent application. It is therefore suggested that such an application might be designated a *Continuation Filed After Grant*. The words "filed after grant" clearly negative the idea that there is any continuity in prosecution of the two applications.

There is another class of applications which are clearly related to continuations, but which it will be misleading to endorse as such. These are applications whose

disclosure, while differing materially from that of prior applications, yet afford foundation for claims that might have been made therein and which contain claims both to the common subject-matter and that which is not common. These applications are entitled to the dates of the prior applications for the claims that could have been made therein and to their own dates for the remaining claims. Such applications have been termed *Continuations in Part*. The assignments of the prior applications do not carry title to such subsequent applications. Therefore there seems to be some question whether it is advisable to make any endorsement on the file wrappers of continuations in part. Since, however, a portion of the claims are entitled to a date earlier than that disclosed by the application, it is of interest to the public to have knowledge of the earlier application. Some reference to the earlier application should therefore appear in the record of the later application. In view of the possible advantage to be derived from the information given by such endorsement and in view of the absence of any apparent objection thereto, it is suggested that such cases bear the endorsement *Continuation in part*.

If an application having the characteristics of a continuation in part is filed after the issuance of a patent on the prior application, it could be endorsed *Continuation in Part Filed After Grant*.

The term *Substitute* should be applied only to an application which is substituted for, or replaces, another; the first application being forfeited or abandoned. This application of the word is consistent with its general use. This term would then be applied to an application substituted for another when the latter covered substantially the same and the entire subject-matter of a prior application. Such an application can not be termed a division, since it contains the entire disclosure of another application, nor, with the restricted meaning above given to the term continuation, can it be called a continuation or a continuation in part. For the two latter terms have been defined as involving a departure from the prior application. The most usual instance of this type of application is where an application is prosecuted to allowance and then abandoned in favor of a new application containing

the claims which were determined to be allowable in the prior application.

There could be no substitute filed after grant of a patent, since the subject-matter of the two applications would be the same and all claims of the later application should have been made in the prior application. Applicant's remedy in such a case would be a reissue of the patent.

These terms used as above suggested indicate the relationship that exists between the subject-matter of the several applications and also indicate by the words "filed after grant" whether or not applicant can carry back his date to a prior case. Furthermore, they cover all those cases in which endorsements on the file wrappers are necessary.

If a parent application contains claims which cover the structure disclosed in a division or a continuation, such division or continuation would come under Rule 43 requiring a cross-reference to the parent case. It appears, however, from Order No. 2071 that an endorsement on the file wrapper and notation in the heading of the printed patent are sufficient reference to the parent application to meet the requirements of Rule 43.

In the case of a continuation in part which discloses matter covered by claims in the prior application, if no endorsement of the prior application is made on the file wrapper, such continuation in part should, under Rule 43, contain a cross-reference to the earlier case.

All parent cases should, under Rule 43, contain cross-references to divisions, continuations, and continuations in part, as the latter cases all contain claims reading on the disclosure of the earlier cases.

There is a class of cases which require cross-references but not endorsements on the file wrappers. These are cases which disclose certain common features, one of the cases containing claims broad enough to read on the disclosure of the other case and the other containing specific claims reading only on the structure of its own case. In these cases, the specific case is not entitled to the date of the generic case, but should contain a cross-reference thereto. These cases may be filed simultaneously or on different dates.

Another class of applications in which cross-references

are necessary is where several applications disclose a common structure but the claims in each are limited to the specific features thereof.

In regard to the nature of the cross-references themselves, it was held in *ex parte Finch*, C. D., 1884, page 1, that references should state the serial numbers and dates of filing of the applications, and in *ex parte Everitt*, C. D., 1889, page 213, that "they must be of such nature that they will impart a more or less definite conception of their scope."

In *ex parte Kellogg*, C. D., 1906, page 84, two applications filed by different inventors were owned by the same party and the assignee wished to refer in one case to the other and it was held that there was nothing in the rule that applications are preserved in secrecy which would make the reference improper. Apparently a party should never be permitted to refer in one application to that filed by another unless both applications are owned by the same party.

Where an application to which reference is made matures into a patent before allowance of the latter case, the serial number and date of filing appearing in the cross-reference should be replaced by the number of the patent and the date of issue.

A reference in an application to another for a disclosure of a feature of invention should not be permitted, as each application should be complete in itself, and further, the application referred to may not mature into a patent. *Ex parte Scott*, C. D., 1901, page 59, and *ex parte Kellogg*, C. D., 1906, page 84.

November 2, 1916.

THE CLAIM AS A DEFINITION OF AN INVENTION

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Corps of the United States Patent Office

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The Claim as a Definition of an Invention

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Section 4888 of the Revised Statutes provides that an applicant for a patent shall "particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery." This portion of the statute is embodied in Rule 37 of the Rules of Practice, which states that the specification must conclude with a distinct claim or claims.

In *Thomson-Houston Electric Co. vs. Elmira & Horseheads Ry. Co.*, 71 Fed. Rep., 396, the court said:

"The claim is a statutory requirement prescribed for the purpose of making a patentee define what his invention is so distinctly and exactly as to apprise other inventors, and the public, what is withdrawn from general use.

"The claim, however, is to be read in the light of the specification, and its literal terms may be enlarged or narrowed accordingly, but not to an extent inconsistent with their meaning.

"Identity of language in the claims of two patents does not necessarily import that the invention patented by each is identical, nor does a difference in phraseology necessarily import that they are for different inventions.

"The test of identity is whether both, when properly construed in the light of the description, define essentially the same thing."

In the case of the *American Roll Gold Leaf Co. vs.*
7147-1

W. H. Coe Mfg. Co., 212 Fed Rep., 720, the court made this statement:

“The protection afforded by a patent is specified in the claims, and the public have a right to rely upon the language of the claims in determining how far the patentee’s rights go.”

At the outset, then, we see that the language used in a claim is important. We find that patents may issue with claims identical in language but covering different inventions, and that because of this confusion, the courts find it necessary to construe the language used in the claim in the light of other things.

Probably the most common reason for the use of identical language in two different cases is because one applicant has copied the claims of another applicant or of a patentee for the purpose of interference. In the interference of *Briggs vs. Lillie vs. Cooke vs. Jones and Taylor*, 116 O. G., 871, 1905 C. D., 168, Commissioner Allen dealt with a case in which—

“counts 1 and 2 have been maintained over the prior art only through construction and interpretation, by which they were assumed to be limited to structure which their terms do not in fact define. The practice in this office of imposing by mere interpretation or construction specific or definite meanings upon generic or indefinite claims of applications . . . can not be too severely criticised. Claims should be construed to mean what they state and nothing more. The wisdom and necessity of adhering to this simple rule is illustrated by the fact that four distinct meanings have been urged for the counts under consideration, these meanings to be secured largely by reading into the claims limitations which they do not, in fact, contain. The following quotation from *Hedlund vs. Curtis* (80 Ms., Dec., 278) applies here:

“In determining the meaning of the issues, it should be borne in mind that the reasons for which claims are required demand that each claim express its meaning as clearly as possible upon its

face. Claims of applications will not be construed away from their plain obvious meanings, and limitations not clearly included in claims will not be read into them.'

"A claim should convey its meaning by express terms. It is not the proper function of construction to insert or eliminate terms, but to explain them. Claims should be amended, not construed, to avoid references, and the same course should be followed in all other cases where the meaning of claims is not clearly expressed by their language. Claims of doubtful meaning do not meet the statutory requirement that the applicant 'shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery.' "

In *Ex parte Cutler*, 123 O. G., 655, 1906 C. D., 247, the Commissioner was confronted with a case in which the applicant had made claims found in a patent granted to another party upon an application filed during the pendency of the petitioner's application.

The examiner held that the claims were allowable in the petitioner's application, but he refused to declare an interference on the ground that the claims meant different things in the different cases and that there was no interference in fact.

The Commissioner said:

"The Examiner . . . has construed the plain broad terms of the common claims in view of different specific structures shown by the parties and in view of different specific purposes dwelt upon in their specifications and has imposed upon these claims in the different cases specific meanings which are not required by the language of the claims themselves. . . . In this office, a claim which is broadly drawn will be broadly read. If a narrow meaning is desired, it must be secured by limitations expressed in the claims. No better method is known for securing the benefits of uniformity and certainty in the construction of claims and at the same time giving

effect to the undoubted intention of the parties drawing them than to give invariably to each claim the broadest meaning which can be imposed upon it without violence to the language used therein. . . . The statutes require that parties shall distinguish their inventions from the inventions of others and that they shall particularly point out and distinctly claim their inventions. The definition of the invention and the distinctions between it and the inventions of others should be carried into the claims. Where different parties have the same claims and each has a proper foundation for them in his application, either the inventions which these claims represent in the different cases are the same or each party has failed to distinguish his invention from that of the other party.

“In the latter event, the claim is indefinite and ambiguous in each case and should be rejected.”

In *Podlesak and Podlesak vs. McInerney*, 123 O. G., 1989; 1906 C. D., 265, each of two applicants made a claim in identical language. When the case reached the Court of Appeals it was remanded to the Commissioner for further consideration. He said in his decision:

“The claim reads without violence to the proper natural meaning of its terms upon the devices disclosed by each party; but the patentable invention which the claim is supposed to represent is found only in the device of one of the parties. Clearly under the circumstances the claim fails to define that invention. . . . This claim was rejected by the Primary Examiner. . . . The rejection was set aside by the Examiners-in-Chief. In this action, the Examiners-in-Chief referred to the specification of Podlesak and Podlesak and they undoubtedly construed the claim to involve the unmistakable distinctions between their device and the device of the reference. The claim does not in fact, however, express these distinctions by its terms, and . . . I perceive no good reason why it should be regarded

as further limited than its language requires. . . . No better method of construing claims is perceived than to give them in each case the broadest interpretation which they will support without straining the language in which they are couched. . . . That a claim which does not carry its true meaning upon its face misleads those affected by the patent instead of guiding them as to its true scope is alone sufficient reason why the Patent Office should refuse to recognize proposed limitations of claims which have not been clearly expressed therein."

These decisions refer to a claim as a *definition* of an *invention*.

What is a definition? What is an invention?

The Standard Dictionary, under the term "definition," says:

"Such a description of a word or thing with reference to its constitution, attributes, appearance, or relation to other like things, as serves to distinguish it from all other like things. Definition may be *rhetorical*, in which case it gives the meaning loosely, and freely uses accidental, relative, and extrinsic properties, or it may be *logical* in which case the conception is separated from all others by presenting its essential qualities.

"Perfect logical definition has two forms according as it regards the general term as (a) a class term or (b) as a concept term. In the former, the definition must give the *next higher genus* and the difference; in the latter, the *properties* of the higher genus and the properties which distinguish the concept as a species from other species."

"To *distinguish* from all other *like* things." This involves us in the question of classification. We group things together because they are alike. We distinguish them from each other by their differences. In our description of any class of things, we find ourselves under the necessity of defining the terms we use, to differentiate between varying phases of the ideas they denote.

The term "invention" has several meanings in common use-----

(a) It may denote the creative faculty, the gift of *invention* which renders its possessor of value to mankind.

(b) It may denote the device in which an inventive idea is embodied, as in the statute Section 4886 "for investigating the public use or sale of *inventions*."

(c) It may denote the act of inventing, the intelligent apprehension of relations not before recognized by others, although actually existing, followed by the conception of how they can be practically utilized (*Eck vs. Kutz*, 132 Fed. Rep., 758), as in the same Section 4886, "before his *invention* or discovery."

Or, most specifically, (d) it may denote the *novel* concept, original with the applicant for which a patent may be rightly granted to him.

This last concept is the one which the claim is to define, to distinguish from all other like things.

When an application is filed in the office purporting to be a new and useful invention, the statute, Section 4893, provides that an examination shall be made of the alleged new invention or discovery; and if on such examination it shall appear that the claimant is justly entitled to a patent under the law and that the same is sufficiently useful and important, the Commissioner shall issue a patent therefor. Section 4888 of the Revised Statutes refers to four classes of inventions: Art, machine, manufacture, or composition of matter.

Ordinarily, there should be little difficulty in determining whether or not any given claim relates to a composition of matter and an art or process is usually readily recognizable as such. In the case of the composition of matter, we are concerned with its chemical or physical qualities. In the art or method we are dealing with a series of operations.

When we consider a device as a machine, there appear to be three distinctly different aspects in which it may be regarded. We may look upon it as a means for performing an operation or a series of operations, and claims drawn to cover this idea are hardly to be distinguished from process claims. They are the machine statement of a process concept. The manufacturer of the machine,

who is concerned with the appearance, cheapness, durability, weight and other factors affecting its sale, looks upon it as an article of manufacture. Whether he shall paint it, or enamel it, or electroplate its parts, whether it shall be made of stamped metal or cast, and similar changes not affecting its function, relate to the machine as an article of manufacture. The aspect under which it would be considered in a treatise on machine design appears to be that contemplated by the statute. A machine is a combination of resistant bodies whose relative motions are completely restrained, and by means of which the natural energies at our disposal may be transformed into any special form of work. It comprises moving parts having a law of motion.

The term "manufacture" or "article of manufacture" is used to comprise those things which do not fall into the other classes. In considering their patentability, we are not concerned with the chemical composition of their parts, nor with a series of operations, nor with a group of moving parts having a law of motion. A hammer, a corkscrew, a bottle, a window sash, a shoe; each has a function due to the arrangement of its parts in space, a space configuration. The invention may reside in this configuration, and this is the ordinary case, or with an old space relation, the article may be made of a substance having properties previously not recognized as rendering it suitable for use for the purpose for which the article is employed, as a gelatine golf tee. The invention here lies in the particular application of a substance. Or with an old space relation and an old material, a new quality may be given to a part, as in a case where the inventor gave a spring temper to a hammer handle to render it resilient. (Held patentable by the Board on appeal.)

Most devices have many parts and differ from previously known devices only in certain details. The inventor was born into a society which for ages has been forced by the struggle for existence to devise expedients to adapt itself to its environment. He has learned to recognize different substances having different qualities. He has seen many mechanical devices and many processes. His education and experience have revealed to him part of this heritage of the race. When he con-

ceives his invention, if it be a true invention and novel, he has perceived relations between previously existing things capable of practical utility. His claims are to define what he considers his invention or discovery. They must not merely exclude prior devices; they must set forth some inventive idea or principle present in the applicant's device.

It is not safe to assume that all the features found to be novel in the disclosure were invented by the applicant. He may be working with others and embody in his illustration features with which his own invention are to be used, but which he knows are not his own. Rules 93, 94 and 96 recognize this fact and provide for the suggestion of claims and the institution of interference proceedings only where two or more parties claim the same invention. If an applicant is not claiming a novel detail, it is taken for granted that he does not consider it his invention.

The inventor, the attorney who prepares his application, the examiner who acts upon it, and the judge who tries his suit for infringement, all meet the same problem:

What is new? What has this invention added to the sum of human knowledge?

The examination of the claims is directed to the determination of several questions.

Does the claim read upon the structure, if there be a structure, or accurately set forth the composition of matter, or state correctly the steps in the process, or describe the true space relations of the article of manufacture, or define the law of motion of the machine? If not, its inaccuracy should be corrected.

Is the language of the claim readable upon a prior device, substance or process, so that it is anticipated? If it is, it should be amended to distinguish from the anticipating reference.

Are its terms free from ambiguity, so that it can not be misunderstood? If not, other language should be used.

Does the matter set forth in the claim include a patentable invention? This is the most difficult of all the questions. Its proper solution involves a study of what has been known or what has been done before and whether the new concept defined by the claim involves

more than the ordinary ingenuity of a skilled mechanic.

Assuming that there is patentable invention in the subject-matter of the claim, the question becomes:

Does the language of the claim define this patentable invention? Remembering that definition is of essentials not accidentals, what are the essentials in this claim?

It is evident that in a composition of matter, the language should define substances. In an art, the language should define operations.

In a manufacture, the language should define space relations or if these be old, the substance used for a type of article, or some specific and inherent quality or characteristic of the article or of a part of it.

In a machine, considered as the means for performing an operation, the elements should be defined in terms of means and function. In a machine considered as moving parts having a law of motion, the elements should be defined in language expressing parts having a recognized law of motion or setting forth the motion explicitly.

The fundamental reason for the rejection of a claim upon the ground of aggregation is that it does not define an invention, but confuses two or more inventive ideas. The present office practice permits an applicant to claim two or more inventions in the same application under certain circumstances, but the examiner should see that each invention is defined in a separate claim.

The point which this paper seeks to emphasize is that the claim is a *definition*.

It is not the limitation of the use of an invention to a specific art while dedicating to the public its use elsewhere.

It is not the description of a structure of which the invention forms a part.

It is not merely a form of language readable upon a device which involved invention.

It is a *definition* of an invention.

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Comments Upon the Prolonged Pendency of Applications in the Patent Office

A paper read November 9, 1916, before the Examining
Corps of the United States Patent Office

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1916

Comments Upon the Prolonged Pendency of Applications in the Patent Office

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Although everybody in the Patent Office is, probably, more or less keenly aware of the undesirableness of delay in the final disposition of applications, the possible evils thereof are not constantly and immediately before us in connection with each case, especially in the earlier stages of its life. It may therefore serve a useful purpose to sum them up as a means of keeping them constantly in mind, for the evils bear heavily upon the applicant, his attorney, the office and the public. Undue delay discourages an applicant and often embarrasses him in working or disposing of his invention. It frequently prejudices an attorney with his client. It increases the work of the office and the attorney, both by dulling the recollection and loosening the grasp of each upon the important facts involved, and by vastly increasing the probability of interferences and of the arising of adverse rights. But, perhaps most important of all, it frequently imposes heavy burdens upon a defenseless public, in which must be included patentees of cognate devices and manufacturers who have often invested large sums upon the basis of a supposed state of the art completely altered by a patent granted upon some application antedating all previously obtainable information upon the subject.

Recognizing these evils has led me to consider how the examining corps can best avoid any share in their production. That in each division, we act upon all cases

and papers filed, at the earliest date possibly consistent with a proper consideration thereof, is of course to be assumed, as also, that each action is the best of which we are individually capable, and I need hardly word the experience, I am sure of each of us that the most careful and painstaking treatment, both as to merits and form, in the first action upon an application, fully justifies itself in the long run, despite an occasional temptation to just off-hand reject upon a "pat" reference "first out of the box" so dear to the heart of the new fourth.

I may, however, mention a useful custom, followed I believe by most of us, which I am sorry to say, I fear is not universal, but which I deem of great value in this connection. This custom is for the examiner in charge to inspect the new cases received each day and assign each to the assistant who is expected to handle it. If the examiner is in doubt as to the case being properly assigned to that division he consults the appropriate assistant who, it may be observed, is very likely to have quite earnest convictions against accepting any case not clearly within his class. If the examiner and assistant can not agree upon accepting the case, the assistant is invited to consult any other division involved and to gather all data bearing on its assignment elsewhere. If the examiner is still in doubt, or believes a case for transfer has been made out, the case is referred to the Classification Division. All this is prior to the entering of the application on the examiner's register. When cases have been entered on the register, they are delivered to the respective assistants, who are instructed to inspect them as to the inventive matter disclosed, with sufficient care to make certain that they are properly assigned—in case of oversight by the examiner in charge—to ascertain whether any interference with any pending case be probable, and to ascertain its relation to his classes, to such a degree, that if between the date of such inspection and the reaching of the case in its order, in the searching of other cases, any class not palpably pertinent, is found to contain patents apparently bearing thereon, the fact may be noted in the case for future detailed consideration.

The time saved and completeness of search facilitated by this preliminary inspection by the assistant, and the early opportunity given other divisions to make the same inspection is believed to materially speed the progress of applications through the Office and I should suppose this custom to be universal were it not that occasionally assistants from other divisions explain delays in offering cases, obviously proper for transfer, on the ground that they have just seen the case for the first time.

Also, along the line of a suggestion by Mr. Frederick P. Fish in his instructive address to us, I may say that if it is at all practicable without serious sacrifice of time, and especially as to formal matters, I find it of the greatest possible advantage in hastening prosecution, that the official action suggest exactly what should be done, even to the extent of supplying language and indicating the exact plane of necessary sectional views, for instance, rather than merely to indicate the shortcomings necessary to be remedied. There seems to be some human trait that causes the mind to fear, resent, or oppose, what is not fully understood. By the majority, a concrete example is far more readily understood than the most explicitly worded abstract proposition. Even those aggressive minds which are impatient of suggestion, are still more impatient of less definite criticism, and while they may repudiate the language of the examiner, their excess of individuality is as likely to result in their trying to do the same thing better (and in fact doing so) as in opposing the change sought.

Besides care and diligence in his own work, what more can an examiner do to shorten the life of an application beyond what may be sought by an over-driven, or negligent, wilful or incompetent attorney, or a lost-interest inventor, or an applicant plotting to play cat and mouse with the public and taking unjust advantage of all the just privileges of the statutes and the rules?

Broadly, this: Having first insured so far as possible that in the first action the case has been treated so fully throughout, that no new ground of objection or rejection need be thereafter stated, which would delay final action for second consideration thereof, the examiner is then in position to insist that in every response, applicant

similarly shall cover the entire field. Rule 68 provides that in amending --

“applicant must clearly point out *all* the patentable novelty which he thinks the case presents in view of the state of the art disclosed by the references cited or the objections made. He must also show how the amendments avoid such references or objections.”

Rule 17 says:

“Prosecution of an application to save it from abandonment must include such proper action as the condition of the case may require.”

The broad authority given by these rules, to insist, not only upon such response, as will make some slight progress in the case, but upon such complete response as shall advance the case, in every respect, to the next stage, is obvious. But difficulties arise in exercising this authority, which often necessitates the exercise of keen judgment and discretion.

Applicant's reply may be truly responsive to the office action, in any degree, from the smallest item only, to the entire extent or purport of such action, or, it may be utterly irresponsive in every respect and may also be informal--for instance, unsigned.

By “responsive” is not meant, of course, that the views of the examiner are accepted by the applicant, but if they are not, it is believed that some, at least plausible attempt, must be made to show the error of the examiner, upon the first response to a criticism or rejection.

As compliance with formal requirements, not affecting the merits, may be postponed until either agreement or an issue is reached, between an applicant and the examiner, responsiveness has a somewhat different application as to the formal criticisms than as to those affecting the merits. Even ignoring, until this stage, of formal requirements, not emphasized by the examiner for cause, may be disregarded. But when the final stage as to the merits is reached, and applicant cancels all rejected claims, or receives a final rejection, it is believed to be then incumbent upon him to completely

prepare the case for issue, or, for appeal, as, by meeting the requirement, arguing at least plausibly against it, if it has not also been made final, or if it has, by filing a petition. Less than one of these courses is clearly not such "proper" action as the condition of the case may require.

Applicant's response may be filed any time, from a day to a year after the official action. The action then proper to be taken, may depend upon the extent of the delay.

In Division 29, immediately a response has been entered in the file—and previous thereto, if it be a substitute specification, or if it direct a cancellation of the drawing, or is not properly signed, or, is not filed within the year—it is placed on the assistant's desk, who is instructed to examine it that day. If the case be in condition for allowance it is immediately passed to issue. If allowable, except for formal matters, action is taken immediately, calling attention thereto, and if they have been previously noted as they should have been (unless they occur in the new paper) applicant is informed that the year within which response must be made dates from the last previous action. If the time be short and further response be not within the year but is made with absolute promptness and renders the case allowable, it is entered and the case allowed; the promptness and full correction being accepted as evidence that full response was contemplated and merely omitted by inadvertence. But if the response beyond the year be again irresponsible it can not be presumed that a fully responsive action within the year was even contemplated, and it is believed that the examiner should hold the case to have become abandoned. Or, if there be ample time and the merely formal amendment be delayed beyond the year, or, if whatever may be filed within the year, be not fully responsive it is believed then, also, the examiner should hold the case abandoned.

It has been suggested that the examiner should not be so strict or so technical in finding abandonment upon the first delay of a year, as he may if such delay has occurred several times, but the statute and the rules make no distinction and it is my observation that when an applicant long delays response to the first action, he

rarely, if ever, acts more speedily later, unless pressure be exercised.

If applicant's response does not place the case in condition for allowance as to the merits, the case takes its place for action in regular order, unless the paper be not properly signed and be filed near the end of the year, in which case applicant is promptly notified as required by the Commissioner's Order No. 1961. Of course, an amendment vitally defective in form, as, by not being properly signed, can not be entered so as to modify the case, but unless it be filed near the close of the year, so that immediate notification without waiting for action on the case in its regular order, is necessary, as provided in said order, I have made it a practice, though not so authorized by the order, to endorse it on the file and place it therein, instead of returning it as authorized in the order and besides the announcement of the informality of the paper applicant is given, in substance, the same action upon the case as if the paper had been formally presented. By this course, especially if the paper be irresponsive or ineffective, prosecution need not be delayed by futile presentation, formally, of the same defects, but applicant may in the formal paper, remedy the other defects of the previous one. In order that no injustice be done other applicants this action is not had until the case is reached in its order, which also gives applicant himself a chance to discover and remedy the formal defect which often happens, and this also sometimes prevents the crossing in the mails, of the examiner's criticism and the voluntary attempt of the applicant to remove the cause.

Where an amendment only partly covers the case—unless the part treated be quite immaterial—it frequently happens that to delay action, on the ground that piece-meal prosecution is not to be encouraged, does not tend to shorten the life of an application. If the paper raises any substantial point, adequate action thereon by the Office, will often tend to advance the case, but it should always be accompanied by a reminder that the paper is not fully responsive and therefore is insufficient to save the case from abandonment, unless supported by further necessary prosecution to be filed within a year from the preceding action. Frequently such partial

amendments are mere "feelers." If applicant or his attorney can speedily ascertain that certain claims will be allowed, it may be that others will be dropped in order to expedite the case. If the examiner can make it clear that they can not be, then attention is apt to be concentrated in the next response upon the remaining matters. Here is where discretion must be exercised. If upon the record already made in the application, or, upon matters already in his knowledge, the examiner feels satisfied that a complete decision can be made on so much as is involved in the amendment, I can see no reason why he should not be willing to give applicant at this stage the benefit of his conclusions. Or, if he is satisfied that there is no other possible patentable feature in the case or that as to the rest of the case no further examination or argument can possibly develop anything further, material to the case, although the partial amendment requires further search or further application of the references for complete action thereon, it seems to me best that action so far as possible be given at this time in order to expedite the case. There are, however, cases, where an application is full of details, many of which have not been claimed and which the examiner would naturally deem so obvious that they never should be claimed and wherein all substantial invention has been completely anticipated, but when the claims in every amendment jump from one set of details to another, when everything justifies the examiner in expecting that every future amendment will require a new search or a new ground of action. In such cases, an obviously partial response, demands no consideration whatever, beyond acknowledgment that it has been filed, with the statement that because of its incompleteness it requires no further action until full response to the Office action is made. In many of these cases the whole intent of applicant or his attorney is to multiply actions, for each of which, I understand, a separate sum is charged the client by certain firms, and to badger the examiner into the attitude of the judge in the Scriptures, whom the woman worried into rendering an unlawful decision. This is the class of cases which necessitates the general rule against "piece-meal prosecution," in the interest of expediting cases and preventing unworthy applicants or attorneys from monopolizing

the attention of the Office, to the detriment of other applicants. Certainly, however, the examining corps should not prejudice so salutary and necessary a rule by misapplying it when it would delay instead of expedite the final determination of cases.

There is one type of cases, in which both the utmost delay and at least partial non-responsiveness, is so nearly invariable as to be in effect the rule. The application, usually for a more or less complicated structure, fails essentially to disclose an operative device, and often it would seem that the preparation thereof has been attempted without sufficient data, or, by some one incompetent to prepare such a case. Whichever it be, the same cause which led to the defective preparation of the case will ordinarily continue to dominate its prosecution. If it be a mental incapacity, the same incapacity stands in the way of an understanding of the examiner's criticisms. Also, when a moral obliquity permits an attorney to file a case knowing and understanding its deficiencies of disclosure, the same obliquity, will lead him to evade the issue, to attempt to divert attention, or, to pretend not to understand the defect or the examiner's criticisms. Either cause also leads to delay. It is obvious that the case is a bug-bear to the prosecutor. He avoids taking it up until the last moment. Perhaps, he hopes that time will dull the acuteness of the examiner's perceptions. He is especially insistent upon the citation of references and action upon the merits of claims not involving the inoperativeness, and that all such formal questions be deferred until that of the scope and allowability of the claims be determined. It is very seldom that an inventor prosecuting his own case pursues such an evasive or dilatory course, in response to a criticism of inoperativeness, unless he is of absolutely unsound mind, and however in error he may be, in theory or practice, an inventor usually hastens to meet an issue of inoperativeness, often to be sure, by suggesting inadmissible new matter, or by propounding fallacies, but also often by showing that the supposed inoperativeness is merely due to an accidental omission to state some operative relation which, though not apparent, can be shown necessarily to inhere in the structure disclosed. Especially quick is the actual inventor to respond to any imputa-

tion on the operativeness of his device. This suggests that, in many cases when the attorney so evades, and delays, he is playing as unfairly with his client as he is with the Office. He seems unwilling to put the matter up to the inventor, perhaps, because he fears to betray his carelessness or incompetency. The longer he delays, the more unwilling he becomes, regardless of the fact that such delay may seriously prejudice the interests of the inventor, if it becomes necessary to file a new application.

Obviously there is no advantage either to the public or to the applicant in any exhibition of leniency in such cases. Postponement of drastic action may vitally prejudice both. The first office action should make clear that the question of inoperativeness is vital (for of course we are not now discussing mere incidental or collateral defects such as obvious mistakes or oversights of a draftsman) and, although references may be cited, and applied, and claims rejected, warning should be given, that no further complete action will be had, until the objection of inoperativeness is disposed of. Full warrant for this position is presented by the fact, that until an operative invention is presented, there is no inventive substance to be treated. It may be well that the action add that it is not apparent that an operative disclosure can be made, without the presentation of new matter, and that failure adequately to respond to the criticism upon this ground, within the year, may work an abandonment of the application.

If the response to this action presents the claims in such shape that they avoid all references, or may be finally rejected on those cited, the next action should so reject, or state that the claims cover novel matter, because this clears the deck, and leaves the matter of inoperativeness to stand out alone. If the response does not admit of this and does not advance the case as to the question of inoperativeness, it is believed that the action should be confined to the latter question, in order to avoid confusion, and because complete action, upon a structure which is inoperative, can not be had. If, for instance, the applicant merely controverts the examiner's holding of inoperativeness, without attempting to remedy the defects of description, or illustration, this obviously

advances the case to the point of enabling the examiner to repeat the action when, of course, if the rest of the case permits, it may be made final, or, if further action, otherwise, be necessary, as for instance, the citing of additional references to amended claims, or a re-application of the references, or, occasion for further criticism has arisen, such additional action must be had and final action on inoperativeness must wait for final action on the remaining points.

On the other hand, amendment to correct inoperativeness by introducing new matter, of course, requires objection or rejection or both on this ground, and as this new ground postpones final action on the case, as a whole, complete action on all other phases of the case is ordinarily advisable in order that the next action may, be final on all questions.

If the only response upon the subject of inoperativeness, is an ineffective amendment, not meeting in substance the examiner's position, the insufficiencies should be briefly pointed out, and the paper stated to be not responsive, and further action refused, unless, as above stated, by final rejection of or admission of novelty in the claims, the issue between the examiner and applicant, can be limited to the single point, in which case, the appropriate announcement can be coupled with the holding of irresponsiveness, if the response has been filed so that action can be had before the end of the year.

In either case, if the response is delayed beyond the end of the year, the application should be held to have become abandoned. -

In several instances where it has been thus indicated that the examiner should hold the case abandoned, this is not meant as even suggesting that such a holding must be sustained by the Commissioner if the matter be carried up by petition.

As I read and apply the statute R. S. 4894 and Rules 171 and 172, founded thereon, the Commissioner alone has the authority actually to decide what degree or manner of prosecution is necessary to avoid abandonment, and what delay is excusable, and nothing here said is meant to encroach on this jurisdiction even by suggestion.

On the contrary the aim is to caution against any such

encroaching by the examining corps, for I consider that a failure to note a delay to prosecute properly within the year, amounts to a decision that the delay was proper or unavoidable, which the examiner has no right to decide, if there be any conditions which raise the question.

During the last eight years Division 29 has probably raised this question as often, if not oftener, than any other division in the Office. In about a third of the cases it has been sustained without comment. In about a third the examiner has been overruled as wrong in the particular case. In the remaining third, it might be said that applicant was let out with a warning.

In every case there has been a very noticeable difference in the prosecution thereafter and the examiner can not but feel that a good purpose was served. He can not help believing that the interests of the applicant, the Office and the public have profited, and that it is a wholesome thing for the practice that a primary examiner should be strict rather than lax in raising the question.

It is believed to be wholly due to so strictly holding applicants to complete prosecution within the year, that Division 29 has no pending case earlier than March, 1910, that there are only five cases filed in 1910 that are still pending before the examiner and only six filed in 1911, all of which stand finally rejected and a proportionately small number in 1912, 1913 and 1914, while before this course was adopted there were cases pending in Division 29 which were filed before the change in the law limiting to one year the period for response by applicants.

The Commissioner wishes me to add to the foregoing discussion the statement that even where he overrules the primary examiner and holds the application not abandoned, he is careful to require that the application be brought into condition for final action before passing on the question presented for his determination; and delay by the applicant in filing a proper amendment at this stage is considered to be a part of the delay which must be shown to be unavoidable.

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MULTIPLICITY OF CLAIMS

A paper read November 16, 1916, before the Examining
Corps of the United States Patent Office

BY

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WASHINGTON, D. C.
1916

Multiplicity of Claims

By

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U. S. Patent Office.

One of the most vital and important portions of the Patent Statutes is that which states that an applicant "shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery."

Commenting on this, Walker says:

"It is the practice of many solicitors of patents to write claims in vague phraseology, with an idea that vagueness is elasticity, and that elasticity is excellence. Such a practice is neither honest nor expedient. It is not honest, because it is often intended, and always adapted, to deceive the public, and to lead individuals into unintended infringement. It is not expedient, because dishonesty is bad policy in matters of patents, as in all other human affairs, and because vagueness of claims may make a patent void which would otherwise be valid. It is the practice of many other solicitors of patents to write claims in loose phraseology, because they do not know how to write precise sentences. By multiplying words they hope to hit the mark, on the same principle that the user of a shot gun hopes to hit a solitary bird. But the principles which apply to shot guns do not apply to rhetoric. The true rhetorician uses a rifle, not a blunderbuss. With him every word hits its target, because it is adapted to do so, and because he knows how to aim it."

These words are even more true today than when written. As any given art develops, applications relate more and more to detail improvements rather than to pioneer inventions. As the principles of classification are more closely applied, applications are limited to devices relating to some particular subclass, and no longer contain claims covering widely different features. Under such circumstances the natural supposition would be that the average number of claims drawn on any feature of invention would decrease. Just the opposite appears to be the case.

For example, typewriter patents were formerly issued which illustrated a complete machine and claimed from eight to ten features, each separate and distinct from the other, and which would now be made the subject-matter of a separate application. Such patents sometimes contained from seventy-five to a hundred claims, rarely more. It is evident that a comparatively small number of claims would be devoted to each feature.

Quite recently there issued a patent for a simple scale mechanism for a typewriter. It comprises one sheet of drawings upon which the reference numerals run from 1 to 20. This patent contained thirty-seven claims, and the applicant endeavored to obtain a larger number.

A recently filed application for an automobile headlight of comparatively simple character contained when filed 565 claims. Another quite simple typewriter application contained 259 claims. In the somewhat more complex fields, such as adding machines, applications and patents containing over 500 claims are not uncommon.

But there is no need to multiply examples; such applications are familiar to all of you. There is probably no single thing which causes a greater waste of valuable time, and a greater wear and tear upon the naturally pleasant dispositions of the members of the Examining Corps, than this prevalent practice of presenting and insisting upon a number of claims which is at total variance with the actual scope and real importance of the invention disclosed.

With practical unanimity, the courts have taken a well defined and clearly expressed position opposed to

the practice of multiplying claims. In *Carlton vs. Bokee*, 17 Wallace, 463-473; 2 O. G., 520; Myer's Federal Decisions, Sections 799, et seq., a reissue patent was under consideration by the Supreme Court, which said in part:

“The single claim of the original patent is expanded into seven distinct claims. The first three of these claims, taken with the qualifications which they contain, and limited as they must be by the state of the art at the time when the original patent was applied for, amount to precisely the same thing and to no more than the one claim of the original patent. . . . The same may be said of the second and third claims. If they mean anything more than the claim in the original patent, they are void. Being identical with that, they are needlessly multiplied, and by exhibiting a seeming of claims to which Reichmann was not entitled, they are calculated to confuse and mislead. We think it proper to reiterate our disapprobation of these ingenious attempts to expand a simple invention of a distinct device into an all embracing claim, calculated by its wide generalizations and ambiguous language to discourage further invention in the same department of industry and to cover antecedent inventions. Without deciding that a repetition of substantially the same claim in different words will vitiate a patent, we hold that where a specification, by ambiguity and a needless multiplication of nebulous claims, is calculated to deceive and mislead the public, the patent is void.”

If the presentation of seven claims in a simple case called forth such incisive comments, one is inclined to wonder what the court would have said if the above mentioned typewriter scale patent with its thirty-seven claims had come before them for consideration.

In *The Brush Electric Company vs. The Electrical*

Accumulator Co. et al., 56 O. G., 1334; C. D., 1891, 477, the court said:

“It seems that in his anxiety to claim his invention in every conceivable form the patentee has involved himself in a labyrinth of description and claims, in which electrician and lawyer alike are quite apt to become confused.

“What Mr. Brush accomplished in 1879 and 1880 can be embraced in a brief, clear, and concise statement. What he actually did is the test by which his patents must be judged. He is entitled to what he invented and only this. His patents can receive no broader construction because he described his inventions with irksome prolixity and gives to the same structure a wearisome variety of names. The nomenclaturist should not seek the reward for his labors in the Patent Office. A person is not entitled to a patent because he has invented a new word. The danger and impropriety of holding a number of claims relating to the same structure, and which can be differentiated only by the most abstruse and metaphysical distinctions, seem apparent. They are calculated to embarrass the inventor and mislead the public.”

One familiar with present day applications and patents would imagine that the patent under discussion must have contained at least a hundred claims to call forth such sweeping condemnation. Not so! The court had under consideration four patents with a total of thirty-five claims. Further comment is unnecessary.

In Thomson-Houston Electric Co. *vs.* Elmira and Horseheads Railway Co., 74 O. G., 144; C. D., 1896, 122; the court used the following language:

“If there be any deviation from this determination, it is due to the fact that he has obscured his real invention in a multitude of fuliginous and attenuated claims, many of which can only be distinguished when their language is subjected to the most searching analysis. He has particularly pointed out his invention in the description; but,

because of this seemingly needless verbosity, he has claimed it indistinctly, to the annoyance of the public, and especially that part of the public which is called upon to construe the patent. A fair amount of tautology and reiteration is prudent and permissible in the claims of a patent; but it is hardly conceivable that it requires thirty-five claims to secure a comparatively simple mechanical invention. Where the patentee has taken pains to cover every shadow of a shade in his claims, the range of construction is limited and he must be held strictly to language which he has adopted with such painstaking deliberation and exactness."

The claims of patent No. 424,695, here before the court, were divided into five groups, each covering a separate feature. This would be an average of seven claims to each of the distinct features covered by this patent.

In *Bellows vs. United Electrical Manufacturing Co. et al.*, 160 F. R., 663, the court had before it patent No. 812,183, which contained twenty-eight claims, and remarked in passing:

"The devices of the patent have been obscured by a multitudinous number of claims, most of them wholly superfluous and the result of a long controversy with the Patent Office on matters of detail, the inventor presented himself originally with eighteen claims."

In *Benjamin Electric Manufacturing Co. vs. Dale Company et al.*, 141 F. R., 989, the court stated:

"The result of this repeated addition of claims to the pending applications is that the patent No. 721,774 now contains 46 claims, and the patent 721,777 contains 17 claims, making 63 in all. Many of these claims are substantially identical, and the excessive number of distinct claims inserted in the patent, most of which are expressed in substantially indistinguishable terms, serves no useful purpose, and simply makes burdensome the investigation of the claims."

In *Computing Scale Co. of America vs. The Automatic Scale Co.*, 119 O. G., 1586; C. D., 1905, 704, the court pointed out certain duplicate claims and commented on them as follows:

“The specification of the patent ends with eleven claims of which 1, 2, 6, 7 and 8 are alleged to be infringed. It will, however, be necessary to only consider claims 1 and 6. Claim 2 differs from claim 1, barring certain immaterial variations in phraseology, in that it limits the spring-supported load-bearing and cylinder-revolving rod to one that is ‘non-rotatably’ suspended from the casing. Claims 7 and 8 admittedly do not differ patentably from claim 6, these three claims stating in varying phraseology the same invention—one of many examples of word-painting too often found in letters patent.”

In *Victor Talking Machine Co. vs. Thomas A. Edison, Inc.*, 221 O. G., 351; C. D., 1915, 50, while discussing patent 814,786, containing 42 claims, the court said:

“Therefore, claim 23 may be disregarded at once; because, where so many claims are put into a patent, each element in a given claim may be supposed to be especially necessary to the combination. In such a patent, there is little room for latitude of interpretation.”

In considering patent 1,060,550, the court further said:

“Whether this be true or not, the practice is so obviously mischievous that the courts should discourage it as much as possible, as well as the practice which permits forty-eight claims upon a simple and perfectly obvious machine like this. Such claims violate the very purpose of any claims at all, which is to define the forbidden field. In such a waste of abstract verbiage it is quite impossible to find any guide. It takes the scholastic ingenuity of a St. Thomas with the patience of a yogi to decipher their meaning as they stand.”

In considering an application which covered both process and article, the Court of Appeals of the District of Columbia said in *In re Carpenter*, 112 O. G., 503; C. D., 1904, 669:

“The claims, as said by the Examiners-in-Chief, have been unnecessarily multiplied, and during the pendency of the application have grown from two to twelve.”

The court considered that four claims were amply sufficient to protect the patentable novelty in the case.

In another application, the same court was moved to remark in *In re Thomson*, 120 O. G., 2756; C. D., 1906, 566:

“The consideration of the merits of applicant’s alleged novel combination was embarrassed, and possibly prejudiced, by the great number of claims presented and insisted upon throughout the proceedings in the Patent Office. On this appeal, the applicant has abandoned all of his twenty-one claims except the four following:”

There is no dissenting voice. The courts have uniformly recognized the fact that a large number of claims in a case tends to confuse and mislead the public; renders more difficult the consideration of the patent by those who are called upon to determine its exact scope; in many cases limits the patentee to the precise construction of any claims upon which he may sue for infringement; and in extreme cases may even render the patent void.

As against these disadvantages, not a single redeeming feature has been discovered. The honest patentee who desires a patent that shall protect his real invention, and who wishes the scope of the patent clearly defined in concise and well expressed claims, gains nothing whatever from an undue number of claims.

The patentee who hopes to gain some temporary advantage from a collocation of vague and ambiguous claims, or who imagines that his patent will be given a broader interpretation because of the very difficulty of determining what the claims really mean; or the man

who desires to mislead or "bluff" the public for the purpose of obtaining some temporary advantage, may have an excuse for presenting a multiplicity of claims, but no valid reasons which should influence the Office to allow them.

The position taken by the courts has been followed in the main by the successive Commissioners of Patents. The whole matter received somewhat extended consideration in *Ex parte Woodruff*, 17 O. G., 453; C. D., 1880, 90, where the following clear statement is found:

"The general doctrine heretofore in vogue in the Office that it is admissible, under proper restrictions, for parties to put their claims in different forms to prevent misconstruction of them by the public or the courts, must be construed, as the Examiner contends, to have reference, not to unnecessary repetitions of claims for the same thing, but to those cases which are difficult of definition, and where one set or form of words would be inadequate to clearly cover the invention and prevent misconstruction. Another difficulty arises from the inability of an applicant to set forth in a single claim the device broadly, so that it will cover all other devices which are the same in principle of operation and therefore equivalents, and, at the same time, the specific device which he has invented and described to carry out the improvement in the art or manufacture. But where the invention is simple in nature and can be clearly stated in simple language and in one claim, there is no justification for setting out the invention in a series of claims which all mean the same thing. Claims are not like counts in pleadings, which are often repetitions of the same cause of action in different forms of language to provide against the hazard of the proofs varying materially from the statement of the cause of action, but they are the conclusion of the specification, and their object is to set forth distinctly and concisely just what the invention is which the applicant asks to be secured him by his patent, and they should not consist of fictitious, redund-

ant, or amplified allegations of matters, by which it is hoped to secure protection for more than the applicant has actually invented or contemplated. Where the terms of a claim in a patent are clear and distinct, as they always should be, no necessity arises for repeating such claim in different forms of language, and subjecting the Office and the courts to great labor in scrutinizing them, and to doubt and annoyance as to their limitations and construction."

Some features of the broad doctrine thus laid down are emphasized and amplified in the two following decisions:

"But where a simple invention is made the subject of numerous claims, some of them differing in mere methods of expression with no corresponding difference in the concrete subject-matter, the Office should insist, courteously but firmly, that one claim only be allowed for a given subject-matter of invention, and that mere differences in phraseology shall not be regarded when urged in defense of a needless multiplication of claims."

Ex parte Johnson, 54 O. G., 505; C. D., 1891, 16.

"The matter to be determined is not whether the several claims standing alone would be patentable as against the public. It is certainly conceivable that each one of the claims standing alone would be an entirely valid claim, and yet that sound principle would require that not all of them should be allowed."

Ex parte Sawn, 54 O. G., 1561; C. D., 1891, 44.

In *Ex parte Griffith*, 85 O. G., 936; C. D., 1898, 233, a very important principle was laid down, and the gist of this decision reads as follows:

"The tests of patentability are the same in kind as if the claims were in different cases, but are not so rigidly applied, and all doubts should

be resolved in the applicant's favor. . . . This does not mean, however, that an applicant after having been allowed claims which fully and adequately cover his real invention will be permitted to needlessly multiply such claims by the inclusion of well-known elements which do not cooperate therewith to produce a new result or in any manner add to the patentable novelty of the device. Such multiplicity of claims would obscure rather than make clear what the applicant regards as his real invention."

There is probably no one thing which is a more potent cause of the presentation of an undue number of claims in an application than this very practice of aggregating with the real invention a large number of old and common details which have no particular relation thereto and which add nothing whatever to the patentable novelty of the device. By thus applying the laws of permutation, the number of claims drawn on a comparatively simple invention can be increased to a marvelous extent.

Another common cause of a multiplicity of claims is that of a variation in phraseology without any corresponding variation in subject-matter, which practice is criticised in *Ex parte Hoegh*, 100 O. G., 453; C. D., 1902, 254.

"This invention is a very simple one. It is impossible to draw fifty-three claims on the simple structure which is disclosed without making many duplicates. All reasonable latitude should be allowed an applicant in presenting claims in order that the patent when issued may afford him full protection. In this case, however, the large number of claims presented by the applicant is not only unnecessary, but unreasonable.

"Claim 1 covers the combination, with the tool-support, of means for clamping a tool in said support. Claim 2 covers the same combination expressed in different words, in that the 'means' for clamping the tool in claim 1 is defined in claim 2 as means for releasing the tool. If a tool is clamped to a support, it follows that if it is

to be released from the support, it must be unclamped.

“Claims 1 and 2 therefore cover by means of different words the same construction, and but one of these claims should be presented.”

The practice thus condemned is a very common one, and often one of the most difficult to detect without a very close consideration of the claims. It is perfectly proper for an applicant to apply generic and specific terms to an element in different claims, but he should not be permitted to multiply claims which differ from each other only by the use of terms of exactly the same scope applied to the same elements.

An instance is recalled in which the claims covered an escapement mechanism comprising a pawl and ratchet. The pawl was referred to in different claims as a “pawl,” “detent,” “dog,” “tooth,” “member,” and one or two more similar terms, all of which had exactly the same scope in the art.

Claims which differ in such fashion alone are undoubtedly duplicates. The use of such varying phraseology merely tends to confuse and serves no good purpose whatever. Applicant should select the broadest or most common term, and use it consistently throughout the claims.

Affirming and amplifying the principle laid down in *Ex parte* Griffith, *supra*, is the decision in *Ex parte* Riley, 101 O. G., 1832; C. D., 1902, 416, which reads in part as follows:

“It has long been the practice of the Office to reject the claims in one case upon the allowed claims in another case filed by the same applicant where there is no patentable difference between them. . . . Although it is true that all of the reasons in such case for the rejection of the claims do not exist where they are all presented in one application, nevertheless there are good reasons for refusing to permit a party to needlessly multiply his claims by alleged combinations of the real inventions with other elements where the alleged combinations are mere aggregations

or where they involve mere double use of the additional element with the real invention. . . .

The only way to treat such claims is to reject them, and in such rejection no objection is seen to referring to the fact that claims to the real invention have been allowed in the case."

Along the same line is the decision in *ex parte* Chapman, 120 O. G., 2446; C. D., 1906, 79, where an application containing twenty-six claims was under consideration. The more important portions of this decision are:

"The courts have frequently condemned the practice of needlessly multiplying claims. . . . The applicant himself gains no advantage by a needless multiplicity of claims; but, on the contrary, it may lead to a limited and strict construction of his claims. . . . Not only may a needless multiplication of claims lead to a strict construction thereof, but it may in some cases render the patent void. . . .

It is clearly the duty of this Office to see that patents do not issue with claims so multiplied as to embarrass and confuse the public. It should allow sufficient claims to amply protect the real invention, but should not permit needless repetition."

And finally, the same basic principle has been recently re-affirmed by Commissioner Ewing in concise and pertinent language in *Ex parte* Whitelaw, 219 O. G., 1237, as follows:

"The claims held patentable are considered as fully covering applicant's invention, and applicant can not be permitted to multiply his claims by presenting alleged combinations which distinguish from the real invention only by including elements which are old in the art and perform no new function."

It appears that the Office and the courts are in substantial agreement upon this matter. And as a general principle, it is believed that the majority of attorneys

will admit that the objections above set forth to a multiplicity of claims are proper and valid.

Some years ago, in an infringement case involving certain typewriter patents, the counsel for defendants made reference to one of the patents under consideration as containing—

“Actually, 81 claims (claims blurred and blind in a rainy season of words, built up in a sort of house-that-Jack-built order, and ringing the changes on fiddle-dec-dee, . . .).”

The real humor of this lies in the fact that at the very same time counsel for defendants was prosecuting in the Office an application relating to a similar machine, and was exerting every effort to obtain the allowance of over three hundred claims therein.

It therefore appears to be well settled and agreed upon by all concerned that a needless multiplicity of claims should not be permitted. The broad principle is definite and undisputed. However, when it comes to the application of this principle to specific cases, manifest and manifold difficulties arise.

Every applicant is willing to admit freely that there should not be too many claims in an application. Every applicant is probably willing to admit that certain patents and applications contain too many claims. But where will you find an applicant who is willing to admit that his application contains too many claims?

Whenever an applicant is required to reduce the number of claims in an application because of multiplicity, or whenever any of the claims are rejected as being substantial duplicates, he is prone to urge that the cancellation of any claims on this ground may be found to deprive him of a portion of the protection to which he is rightfully entitled.

Such arguments are often reinforced by the citation of the decision of the Supreme Court of the United States in the case of *The United States Repair and Guaranty Co. vs. The Assyrian Asphalt Co.*, 98 O. G., 582; C. D., 1902, 575.

In the proceedings which led to the grant of patent 501,537, under consideration in this decision, the Office

rejected claim 3 as being a substantial duplicate of claim 1. Applicant thereupon canceled claim 3.

The court held claim 1 invalid, and held further that it could not be sustained by limiting it so that it would be substantially the same as claim 3, which was canceled, because applicant was bound by his voluntary cancellation of that claim.

Where an applicant cancels a claim in view of the prior art, he is bound by that act, and after the patent has issued he can not urge that any of the patented claims should be construed to cover substantially the same subject-matter as the cancelled claims.

But where an applicant cancels a claim because it is a duplicate of another claim in the case, it does not appear that he has relinquished anything. The point to be determined is whether the two claims really are duplicates or not. In the case above cited, the court virtually held that the Office was in error in considering the claims duplicates.

But because an error was made by the Office in holding that these two claims were the same in substance, is not a valid reason for permitting all subsequent applicants to claim the same invention in different phraseology.

It merely indicates the advisability of careful consideration of the question of duplicity, and emphasizes the fact that the applicant should draw his claims so carefully as to set forth the real invention in clear, accurate, and concise terms.

While each case demands separate consideration, and the proper number of claims varies with the complexity of the device, the development of the art, and various other factors, nevertheless there are certain tests or rules which may be applied with substantial uniformity, and which will facilitate the solution of the problem.

Claims which differ only in the introductory clause are manifestly duplicates. An application for a lantern was once filed containing approximately eighty claims divided into four groups which differed only in the introductory clause. These groups began respectively: "In a lamp, . . . ;" "In a lantern, . . . ;" "In a signal lamp, . . . ;" and "In a signal lantern, . . . ;"

At one time it was not uncommon for an applicant in

the typewriter art to attempt to distinguish one claim from another by reciting in one claim: "In a front strike typewriting machine, . . ." while the other claim read: "In a typewriting machine, . . ."

Generally the duplication is more carefully concealed and rests on more subtle considerations. An application is presented for a tabulating mechanism for a typewriter. One claim recites: "In a typewriting machine, the combination of a platen, . . .," etc. Further on, another claim is presented which is identical with the first claim except that it begins: "In a typewriting machine, a rotary platen, typebars which strike upwardly and rearwardly against the platen, . . .," etc.

Such claims are duplicates. So far as the invention is concerned, it is immaterial whether the platen is rotary or not, and equally immaterial whether the machine is front-strike, top-strike, or bottom-strike. Such limitations add nothing whatever to the real invention set forth in the claim, but merely aggregate with it old and well-known details.

But whenever such claims are rejected on the ground of duplication, the applicant with a greatly aggrieved air presents the argument that his invention is applicable to various types of machines; that one claim is limited to one certain type while the other is broader because it is not so limited, and that the Office, for this reason, should allow both claims in the absence of any anticipatory art.

Such an argument tacitly ignores the real issue, which is that these extraneous elements have nothing whatever to do with the real invention. If the broader claim is allowable, it furnishes ample protection. If the broader claim is not patentable, the addition thereto and the recital therein of certain old and well-known elements of a typewriting machine, which do not in any manner cooperate to produce the real invention, can not possibly make it patentable. In either case, one claim is entirely superfluous.

The writer recalls one instance in which three claims were presented which were identical, or practically so, except that one claim called for a rotary platen, one recited merely a platen broadly, and the third omitted

any mention of the platen. With the invention disclosed in the case, the platen had nothing whatever to do.

There are certain types of mechanism in which parts are duplicated. For example, the two ribbon spools of a typewriter, or the two headlights of an automobile. In dirigible headlights, in which the lamps are mounted to turn in unison with the front wheels, it is common to provide a separate train of connections from each lamp to the steering mechanism. These trains of connections are duplicates.

Nevertheless, in such devices, a claim is frequently presented which recites one train of connections in detail, and another claim which merely pluralizes each element of the first claim, and is intended to cover the two identical trains of connections, although they have no structural relation.

Both of these claims ought not to be allowed. The invention resides in the train of mechanism and not in applying two or more headlights to an automobile and providing each with connections to the steering mechanism, since this is old and common. If a certain combination of elements is not patentable, merely multiplying each element by two does not make it patentable, while if the combination is patentable, it furnishes complete protection against an infringer who should use two or more of the mechanisms covered thereby.

Two claims which differ from each other only by the inclusion in one of them of the phrase "substantially as described" are duplicates. *Ex parte Shepler*, 102 O. G., 468; C. D., 1903, 17.

In general, claims which differ from each other only by the inclusion of descriptive matter of any sort, are duplicates. In order that two claims shall be distinct and patentably different, there must be a difference in the structure positively recited.

It naturally follows that where the device covered by the claims of an application is capable of performing several functions, claims which differ from each other only by the statements of function attributed to the device, are duplicates. *Ex parte Jacobson*, 107 O. G., 1378; C. D., 1903, 474.

This necessarily follows from the fact that a com-

bination claim is supposed to define structure, and where the structure covered by one claim is exactly the same as that covered by another, the two claims are duplicates, even though they may differ in the functional or descriptive statements attributed to that structure.

There is, however, an occasional case where claims which differ only by functional statements modifying means used as a proper element of a combination claim are not duplicates. Such a condition arises where the structure necessary to produce one function requires more structural elements than that which produces the other function. The flexibility of the term "means" is such that it may cover one or a dozen elements, and the novel structure set forth by the claim determines whether or not it is a duplicate of some other claim.

These special considerations are of comparatively limited value because such cases do not occur with any frequency. What is needed is some more fundamental rule or test that may be applied generally with ease and accuracy.

It should be remembered that a claim may be rejected on prior art, on a claim in an allowed application of the same applicant, or upon another claim in the same application. In all three cases, the tests of patentability are the same in kind. The sole difference is the strictness with which they are applied.

When a claim is rejected on a claim in an allowed case of the same applicant, the line is not so closely drawn as when the rejection is made on the prior art. When a claim is rejected on another claim in the same application, the tests of patentability are applied still more leniently and all doubts are resolved in favor of the applicant. Still the vital point is that the tests are exactly the same in kind in all three cases.

Strictly speaking, each allowed claim in an application becomes prior art against other claims in the same application. It is true that very slight differences are regarded as rendering a claim patentable over another claim in the same case. This is perfectly proper. The point which it is desired to emphasize is that these added details or differences should be novel and not features which are old and well known in the art. They

should also be positive statements of structure and not functional or descriptive limitations.

After the pertinent art has been considered in its relation to the claims of an application and they are found allowable, they should also be considered with relation to each other. If any claims differ only by introductory clauses, descriptive statements, duplication of elements, or details which are old and common in the art, or with rare exceptions functional statements, they are duplicates. Any claim which fails to add something novel to another claim, or does not state the same novel feature in terms of unquestionably different scope, should be rejected as a duplicate claim.

Under the present practice, the Examiner must group the claims that he considers duplicates. See *Ex parte Kadow*, 154 O. G., 1412; C. D. 1910, 79.

In case of extreme multiplication of claims it would relieve the Office of much unnecessary labor, if it were permissible to require the applicant to point out what he considers to be the patentable distinction between the various claims.

It has been held in *Ex parte Richards*, 124 O. G., 2534; C. D., 1906, 403, that the provisions of Rule 68, which require an applicant when amending to point out the patentable novelty and show how the amendments avoid the references and objections, apply to amendments presenting new claims.

Where the applicant unduly increases the number of claims by amendment, proper compliance with Rule 68 requires him to point out how these new claims avoid the art and objections, and also how they differ patentably from each other and from claims previously in the case. Amendments which fail to do this should be held unresponsive and insufficient to save the case from abandonment.

If applicants and their counsel understood that the provisions of Rule 68 would be strictly enforced in this respect there would not be such a marked tendency to file additional claims each time the case is amended.

In *Ex parte Iagan*, 162 O. G., 538; C. D., 1911, 10, claims which were unduly prolix and descriptive were condemned and regarded as unpatentable, because for

that reason they failed to "particularly point out and distinctly claim" the invention as required by the law. This decision quoted from *Ex parte Lawrence*, C. D., 1869, 83.

Cases not infrequently arise in which an applicant unduly multiplies the claims by resorting to the practice of making each claim slightly more specific than those preceding, until the narrowest claim could be infringed only by an exact duplicate of the device illustrated.

In such cases, a common sense application of the principle laid down in *Ex parte Lagan, supra*, would operate to reduce the number of claims.

Notwithstanding the forcible manner in which the courts and Commissioners have expressed themselves upon the question of multiplicity of claims, the examiners frequently do not attempt to apply the principles laid down in published decisions, because of a more or less well-founded belief that a rejection on the ground of multiplicity or duplication of claims will not be sustained on appeal.

Some years ago a three party interference was declared involving a relatively simple type-bar bearing. The interference as declared between two parties contained thirteen counts. A motion to amend was brought under Rule 109, adding twenty-five counts. Although this was refused entry by the Primary Examiner on various grounds, one of which was that the number of counts in the interference as declared was amply sufficient to determine all questions of priority, he was overruled by the Examiners-in-Chief.

Thereafter a further motion to amend was brought under Rule 109, adding sixteen counts. This was refused by the Primary Examiner, and again he was overruled.

The interference was then re-declared between three parties, *Hagerstrom vs. Josleyn vs. Hulse*, Intf. No. 29961, with forty-eight counts on a structure which probably could have been covered amply, and in all patentable details, by one-third of that number of claims.

This brief statement of the facts in this case is sufficient to indicate what a large amount of time and labor was wasted in the prosecution of this interference because

of the presentation by the parties thereto of an undue number of claims.

Since the holding that two or more claims are duplicates, or that a group of claims is objectionable because of multiplicity, is a matter that relates to the merits, it is appealable to the Board of Examiners-in-Chief. *Ex parte Chapman*, 120 O. G., 2446; C. D., 1906, 79. Therefore the Office action should ultimately take the form of a rejection.

If the Examining Corps would apply consistently the principles laid down in the decisions hereinbefore cited to all cases in which they are obviously applicable, it is believed that the average number of claims presented in an application would decrease to a marked extent in a comparatively short time. Much valuable time would be saved by the Office in the prosecution of an application; the resulting patent would afford the patentee better and more certain protection; and the public would be more clearly and exactly informed as to what the patent covers.

November 16, 1916.